



West Virginia Department of Agriculture

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12-25-B-0864

FINAL REPORT

Submitted:

Summary

An increased emphasis on bee colony health and the positive implications it has on increased food production, the West Central Beekeepers Association aimed to reintroduce honey production in the region as a viable agriculture enterprise through education and material supply.

Activities/Approaches

Beginning beekeeping class to the public through May of 2009

- a. We were able to educate 33 class members to the art of beekeeping, and introduce 31 new hives of bees into the area in the spring of 2009.
- b. We felt that all our goals were met for reporting as all 33 members completed the class, which covered all aspects of beekeeping from setting up a hive, to the treatment of diseases to the completion of honey harvest.
- c. WVU Extension Agent, Brandy Brabham was instrumental in getting the class set up and started along with managing the plan to finance the project and applying for our grant.

Wade Stitlner presented a class on overwintering of hives (see 2008 Cabell Wayne Beekeepers SCBGP),

Mike Shamlin gave a seminar on inspecting for verroa mites and application of treatments.

Boyde Hamric did a "hands on" demonstration on the assembly of hives and frames.

We set up a display at the WV Walnut Festival in Spencer to educate the public on the necessity of beekeeping, handed out leaflets provided to us by the WV Department of Agriculture, as well as hands on demonstration of all parts of a bee hive, and the necessary equipment. Introducing young students to the art of beekeeping. This was done in October 2009, and repeated in the upcoming 2010 Festival.

Results

The group conducted the classes and met their target participation numbers. Program income was reinvested the proceeds as cost sharing in order to purchase bees and hives and allowed the project to expand. Thirty-one additional hives and an extra class (2011) demonstrated the grants' effectiveness.

The group can estimated a 75% success in their ventures in terms. A significant increase in honey production was not recognized due to weather and disease conditions. However, the key elements of education and targeted practices to

limit loss through disease bode well for future production increases. Most of the new hives have survived; some only barely, which created set back in honey production. Some queens were lost from the hives which created more set backs for some of the beekeepers. Winter survival has been pretty much successful, but by placing some of the new packages in old hives, we believe that created some problems for a few of our beekeepers, in that some have reported disease, and other have reported winter loss.

A recent survey indicated a 50% winter survival of 22 packages purchase reported, with 125 lbs of honey production.

Lessons Learned

Targets were reasonable and attainable but expensive. Wooden ware is expensive but a must for new hives, as they contain no sort of contamination, and present a clean environment for new establishments; this eliminates some of the disease issues encountered that reduced winter survivability.

Long Term Outcomes

As our recent efforts have been mostly concentrated on introduction of new bee packages and WV Queens, we wish to continue to introduce more WV Queens, as well as introduce a new program which will ultimately result in more accessible food sources of pollen and nectar for our local bees, in that we plan, for the next year to promote a FRUIT TREE AND BERRY VINE PROGRAM, along with assisting our members with the purchase of new wooden ware.

Contact

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West Central Beekeeping Association
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“Garden Fresh Country Market Promotional Campaign”

Garden Fresh Country Market

\$1,234.00

Summary

Our need was to increase awareness of the availability of specialty crops at our Garden Fresh Country Market. This farmers’ market is located in the Terra Alta Community Park.

We worked to increase market awareness by increased promotional activities and advertising. Just before the market season started we had rack cards printed which we distributed personally to all the local businesses, library, town hall, senior centers, etc. As the market started we placed news items in the local papers and on the local radio stations, in the town newsletter, and in the senior citizens newspaper. There is a small recreational community near Terra Alta and we were able to place an ad in their monthly newsletter at no charge. After the market started for the season, regular newspaper ads highlighting available produce were placed in the local papers and an advertising supplement. In 2009 two banners were ordered for placement at each end of Terra Alta to direct customers to the market and were in place for the 2010 market season. There was also a banner at the entrance of the Community Park. In 2009 a sandwich sign was set out each market morning at the intersection of the main route through town and the park street to direct customers to the market and in 2010 two additional sandwich signs were placed at other intersections. Weekly emails were sent to customers who had signed up highlighting available products, recipes, special events.

Activities/Approaches

Our goals were to build our customer base and to promote our local, seasonal produce. In addition, we hoped to attract additional vendors increasing the variety and quantity of produce available to our customers.

To build our customer base and promote our local produce we increased our advertising and promotional efforts, both paid advertising and free advertising. Grant funds were used for newspaper ads, rack cards, 2 large vinyl banners and material for sandwich signs. Free advertising included radio spots, newspaper articles, ads at a local resort community, two sandwich signs made by vendors from recycled materials, articles in the senior citizens news insert and the town newsletter. We also had an additional sandwich sign from previous seasons, another sign directing traffic to our market and a banner at the park entrance.

A manual count was taken each market day by one of the vendors. We hoped additional promotional efforts would increase the numbers of customers visiting our market. Although it is a small market, it does offer a good variety of specialty crops throughout the season.

To attract additional vendors we advertised our association meetings in the spring and contacted producers we thought might be interested in joining the market.

Results

Unfortunately, we did not achieve our main goals. We had hoped to increase our average customer count by at least 100 people or about 75%. We tabulated customers weekly and our average count was 99, about our average for 2008.

Prior to 2009 the market operated with four all season vendors. And although we started the 2009 season with two additional vendors, they moved to other larger markets after a few weeks. In 2010 we had two additional vendors who came during the season as their produce was available.

We asked our customers to complete survey forms to determine if they were satisfied with the market location, day and time, availability of produce, if they were new customers, and how they learned about the market. The surveys all indicated satisfaction with the current market. Only a few indicated interest in a Saturday or mid-week market.

Most customers indicated they learned about the market from friends/relatives. The other advertising mentioned most was newspaper advertising/news items and the signs/banners. However, in just talking with people in town/customers the signs and banners seem to make the most impact.

We also surveyed our producers, asking about income, advertising, ideas for 2011. Of our six regular producer families in 2010, income at the Terra Alta market was down for three. However, these all indicated they had production problems.

Lessons Learned

Based on the survey results and personal feedback from customers, some of the producers planned for additional products for the 2010 season or increasing/decreasing quantities of current products and also for the 2011 season. This includes long term planning, like planting fruit trees and blueberry and raspberry bushes.

Long Term Outcomes

Because we seem to have stopped growing as a market, we had hoped a greater promotional effort would help to increase both customers and vendors. We also wanted to find a way to assess our location and day/time. Although we did use much of the grant funds as we had planned, we did have

some issues with the grant process that we feel had a negative effect on our plans. We received a letter dated March 24, 2009 indicating our project had been accepted. However, as we were completing some of the early paperwork, we were told in a phone conversation that the funding was not guaranteed. As time passed and it was time to start our promotional effort, we still did not have the funding and we felt we had to adjust our plans in case we did not receive the grant. When we received the grant agreement papers, included was a letter stating that someone from the marketing department would be contacting us to work with us, and we did wait for that contact. Also, we did not receive copies of our signed documents as indicated in the letter. By this time it was the middle of the market season and although we did follow through on the newspaper advertising, the banners were ordered too late to be included in our 2009 campaign. We did use them in 2010. We also did not complete other promotional plans in 2009, such as additional sandwich type signs, but did use these grant funds for 2010.

Terra Alta is a small rural community. Many people work out of town. Our customer survey was completed by a “captive audience” and didn’t reach most of the town residents, some or many of whom might prefer a different day/time. Also, although our building is a great facility, it is not located on the main thoroughfare and again, by the very nature of our survey, we did not learn if another location would be preferred by potential customers.

Several factors may have contributed to our lack of customers. Although our prices were competitive, economic issues probably hurt us. People may have preferred one-stop shopping at nearby Walmarts or other grocery stores. Gardens were more plentiful. Holiday visitors we noticed in previous years were lacking. Summer residents at the nearby recreational community were not as numerous as in years past. And the lack of vendors is a disadvantage – not because we do not offer a good variety, but the perception is that we do not. Several times we noticed cars driving up to our building, people would glance in, then drive off without even coming in.

Of the six vendors that regularly attend, three attend markets in other counties/towns. We would all like to see the Terra Alta market succeed. We will continue our market in 2011 and will again use local radio and newspaper resources for news items and advertising. We will use the banners and sandwich type signs to direct drive-through traffic to the market. We listened to our customers and plan to adjust our produce offerings. We plan to continue our weekly tabulation of customers. Also, even though our surveys indicated our customers were happy with our Friday morning market time and place, we received enough feedback from other townspeople to try a second market day and location starting the first Saturday in August. We will be setting up in the town hall parking lot Saturday mornings. Although we won’t be in our pavilion, we will be on the main road through town. Parking is good for customers and we will have a more visible location.

Contact

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“Northern Panhandle Farmers’ Market

Weirton Farmer’s Market (funding accepted by Wheeling Farmers’ Market on behalf of Weirton)

\$2,500.00

1. What was the issue, problem, interest of need for your project?

- a. WV families need to eat more vegetables and fruits.
- b. Local farms need to sell more vegetables and fruits at locally grown farmers markets to help grow the economy.

2. How did you approach each of the issues or problem described in

Question 1? Match your project activities to the issues, problems and/or interested listed above.

- a. The Wheeling Farmers Market (Ohio County) worked along with the farmers markets in Moundsville and Cameron (Marshall County), Follansbee (Brooke County), and Weirton (Hancock County) to create a sustainable marketing campaign.

3. What were the goals for the project?

- a. From grant application:
 - i. Create an effective, sustainable marketing campaign to be used throughout the northern panhandle of West Virginia in order to:
 - 1. Increase awareness of the availability and higher nutritional value of locally grown produce (fruits and vegetables) to families in West Virginia as well as Ohio and Pennsylvania.
 - 2. Promote purchasing locally grown produce to families in West Virginia as well as Ohio and Pennsylvania.
 - ii. Work collaboratively with other farmers’ markets and local extension agent to train volunteers to conduct project evaluation (marketing research).

4. Strategies/Results:

- a. There are 4 counties involved in the project (Hancock, Brooke, Ohio, and Marshall). Funds for the grant were expended as follows:
 - i. Tri-State Printing:
 - 1. 10,000 full-color posters (8 ½” x 14”) which were then divided between the counties. The posters were created so that each county was able to “tailor” it to their specific location. It was intentional that not all posters were tailed at first so that:

- a. They can be used with current information; and
 - b. They could be changed for use in future years.
 - 2. Total Cost: \$1,100
- ii. Lamar Advertising:
 - 1. Produced 16 vinyl banners (4 ft. x 8 ft.) which were tailed for each county. Each county received four banners.
 - 2. Total Cost: \$1,408
- iii. Upon receiving their posters and banners, each farmers market determined the best locations for them. Each market was responsible for placing them.
- b. Each poster and banner contained the Specialty Crop Grant funding statement.
- c. Challenges Encountered:
 - i. The Weirton market had to find a new location for summer 2010. As this was the first year of funding for this grant, it was helpful to the market to have new banners and posters to be used for advertising.
 - 1. When the market research was completed, this move turned out to be a positive one in that the majority of customers sited that they were a past customer or that they had learned about the market simply by driving past it.
 - ii. Summer 2011 – the spring was unusually “wet” and farmers had a difficult time getting their crops planted. For the Weirton market, one vendor was not able to participate as he lost approximately 80% of his potato crop; due to the distance he lives from the market, it was not feasible for him to participate this year.
- d. Success Story:
 - i. Carole Scheerbaum, WVU Extension Agent in Hancock County, was talking with market customers in summer 2010. When she asked them how they learned about the market, one customer commented that she saw the vinyl banner in New Cumberland (approximately 10 miles from the market). She reported to Miss Scheerbaum that, “I didn’t know there was a market in Weirton.”
 - ii. The banners and posters continue to be used each year in each county.

5. Long-term outcomes:

- a. Sustainable/ongoing marketing strategy has been created and is being used.

6. Publications:

- a. A copy of the vinyl banners (each were 4 ft. x 8 ft.) is copied below.
- b. A copy of the posters used in each market is also enclosed. Of note – the same layout was used in each county. They are tailored to meet the specific needs of each area.)

7. Contact person:

- a. Carole Scheerbaum, MA
WVU Extension Agent and Instructor
WVU Extension Service - Hancock County
104 N. Court Street, Room 203
P.O. Box 457
New Cumberland, WV 26047
304-564-3805 (Office)
304-564-5047 (Fax)
E-mail: carole.scheerbaum@mail.wvu.edu
<http://hancock.ext.wvu.edu/>



FARMER'S MARKET



**Goodwill Shopping Center
& New Life Worship Center**

**306-308 Penco Road • Weirton
Mondays: July-October
3 pm - 6 pm**

FARMER'S MARKET



Follansbee Town Square

**Every Other Wednesday
July-October • 4pm-6pm**

FARMER'S MARKET



**Marshall Co. Farmer's Market
12th Street • Moundsville
Saturdays: May-October • 8am-11am**

**Cameron Elementary School
Cameron
Wednesdays: June-Sept. • 9am-11pm**

“Advanced Foods: Appalachian Food and Culture”

Liberty High School

\$2,180.00

Final Report, Grant 2009SC16A 2011-2012, Kera Cherrey

Question 1

The Family and Consumer Sciences Department sought funding from the West Virginia Department of Agriculture to buy materials needed for successful completion of a WV Food and Culture Course.

In today's wavering economy, we have begun to see a shift in consumer choices leading us closer to home. This shift has many bases: growing nationalism sparks pride in things grown or made in America; rising oil prices drives costs of produce and products which are shipped from other regions or countries; the uneasy economy is reducing financial flexibility among consumers. What better time than now to make our students informed consumers; to teach them about the food sources and natural resources we have in our back yards by way of specialty crops?

The Family and Consumer Sciences Program of Liberty High School, Raleigh County, sought to raise awareness of specialty crops by offering a foods course which focused on crops found in the Appalachian Region and the growing, harvesting, and processing of these crops for consumption.

Question 2

Growing of Specialty Crops:

- The students, unable to grow the crops on their own, researched each crop at the start of the unit.
- The students filled out “Crop Plots” for each crop, to facilitate their research.
- I adopted a textbook from which to study various regionally grown foods: Appalachian Home Cooking by Mark F. Sohn.
- The students took organized field trips to learn about the growing of certain crops (Morgan Orchard, Rutledge Farm).
- The students transplanted tomatoes as part of their field trip to Rutledge Farm.

Harvesting of Specialty Crops:

- The students took organized field trips to participate in the harvesting of apples (Morgan's Apple Orchard).
- My classroom hosted guests who spoke about the harvesting procedures for certain food items (Mrs. Dillon; growing/harvesting tomatoes and apples)

- The students used their textbooks and various supplements to study about the proper procedure for harvesting specialty crops, as well as timing and testing for quality.

Processing for Consumption:

- Each unit was accompanied by a Foods Lab, during which students prepared an item or a meal which highlighted a recently discussed specialty crop.

Labs included:

- Blueberries
- Bruschetta Sandwiches (tomatoes)
- Apple Stack Cake
- Apple Havens
- Sweet Potatoes
- Fried Squash and Zucchini
- Pumpkin Spice Cupcakes
- Biscuits and Grape Jelly (canning)
- Pepperoni Rolls
- Old Fashioned Bread
- Country Side Dishes
- Corn
- Herbs and Game
- Desserts (peaches, honey, apples)
- Final Dinner

Question 3

Goals (Goals were originally written as curriculum objectives.)

1. The students will be able to describe the traditions and customs specific to the Appalachian region as they are asked to bring in family recipes and customs for their first assignment.
2. The students will perform the planting, nurturing and harvesting of at least one specialty crop.
3. The students will explore the tools, utensils and techniques necessary to prepare specialty crops for consumption in regional dishes.
4. The students will examine local and regional food sources by taking trips to local farms and hosting guest speakers in the classroom in order to learn more about our local resources.
5. The students will analyze specialty crops for quality and ripeness in order to use their selected foods in their recipes.

6. The students will be able to demonstrate storing and canning techniques upon learning proper techniques from a guest speaker.
7. The students will analyze specialty crops for use in products not related to food or consumption, which will be supplemented through local specialty crop industry, or research.
8. The students will organize a “buy local” campaign to extend throughout the school and surrounding community.
9. The students will record the recipes, skills and techniques acquired in class in a hand-made booklet, for later use throughout life.
10. The students will prepare a complete meal out of specialty crops (and supplements to specialty crops), for consumption and comparison to meals made from scratch.

Question 4

Explanation of Goals Achieved

Goals were originally written as curriculum objectives. Those goals accompanied by a check were completed as stated. Goals which were not checked offer an explanation of adjustment.

√ 1. The students will be able to describe the traditions and customs specific to the Appalachian region as they are asked to bring in family recipes and customs for their first assignment. Students were provided with a rubric from which to complete their “Family Recipe Project”. Such recipes included mashed potatoes, macaroni and cheese and blueberry dumplings.

2. The students will perform the planting, nurturing and harvesting of at least one specialty crop. Students were able to physically harvest produce from an apple orchard. They were able to plant tomatoes at a farm. They were only able to learn of the planting and nurturing of other types of specialty crops through the curriculum.

√ 3. The students will explore the tools, utensils and techniques necessary to prepare specialty crops for consumption in regional dishes. Monies from the grant were used to purchase apple peelers, text books and canning materials, all of which were used within the curriculum to produce an edible product.

√ 4. The students will examine local and regional food sources by taking trips to local farms and hosting guest speakers in the classroom in order to learn more about our local resources. The students took field trips to the following places: Morgan Apple Orchard and Tamarack. The class hosted guest speakers on the

following subjects: homemade spaghetti sauce; homemade jam; apple stack cake.

√ 5. The students will analyze specialty crops for quality and ripeness in order to use their selected foods in their recipes. The students studied indicators of quality and ripeness, for each crop, before using the produce in a foods lab.

6. The students will be able to demonstrate storing and canning techniques upon learning proper techniques from a guest speaker. The class hosted a local guest speaker who taught students how to make their own grape jelly. The students used their grape jelly to practice canning.

7. The students will analyze specialty crops for use in products not related to food or consumption, which will be supplemented through local specialty crop industry, or research. Students focused on specialty crops used solely for consumption purposes.

√ 8. The students will organize a “buy local” campaign to extend throughout the school and surrounding community. Students researched local farms which offered a myriad of crops; they constructed posters which advertised these farms, and they hosted the “Apple Heaven” event which highlighted apples picked by the students on their field trip to a local orchard.

9. The students will record the recipes, skills and techniques acquired in class in a hand-made booklet, for later use throughout life. Students were unable to produce a recipe book. Recipes from each lab were made available to the students for future use.

√ 10. The students will prepare a complete meal out of specialty crops (and supplements to specialty crops), for consumption and comparison to meals made from scratch. Students recreated a Thanksgiving Dinner, highlighting specialty crops and regional foods discussed.

Question 5

Conclusions

1. How many students will be directly or indirectly impacted through the implementation of an Advanced Foods Program specializing in regional specialty crops?

The class size will not exceed 18 students per semester. Furthermore, the Vocational Agriculture Program at Liberty will be directly impacted as the student's aid in the presenting of production and harvesting techniques to this advanced foods class. Liberty High School, Raleigh County, educates approximately 410 students during the course of a school year, all of whom will

be indirectly impacted through a “buy local” campaign taking place school and community-wide.

9 students were enrolled, attended, and completed the course in the fall. 5 students took the class the duration of the 2012 semester. The enrollment for Liberty High School during the Fall semester was approximately 550 students. The “Buy Local” campaign took place school wide for two weeks. Students visited Morgan Apple Orchard, and Tamarack during the fall. The spring semester class visited Rutledge Farm and Tamarack.

2. How may the success of the program be measured?

Whereas this program will not produce as many quantifiable results as one with controlled parameters, this program benefits from the built-in measures associated with any classroom: grading. Success on an individual basis may be measured based on the grading system. Records will be thoroughly kept, indicating which areas of study: producing/harvesting; selecting for quality; preparing for consumption, will be of most success. Students will be applying classroom knowledge to real-life situations, whether on a field trip, in the classroom, or in the kitchen and will furthermore be graded based on their success in these areas.

Of the 9 students who enrolled, attended and completed the course during the fall, grades were as follows:

1	“A”	:	93-100	:	
	“B”	:	85-92	:	7
	“C”	:	75-84	:	1
	“D”	:	65-74	:	0

Of the 5 students who enrolled, attended and completed the course during the spring, grades were as follows:

“A”	:	93-100	:	5
“B”	:	85-92	:	0
“C”	:	75-84	:	0
“D”	:	65-74	:	0

Question 6

Long Term Outcomes

3. Subsequent enrollment. (taken from “Expected Measureable Outcomes” in proposal)

Provided funding is still available, enrollment numbers in subsequent years may also provided a measure of success through student interest in the subject matter. As long as enrollment numbers remain close to the seating limit the class will be considered in demand, which, in some cases, may be construed as a successful program.

The Buy Local Campaign conducted throughout the years was meant to implement a culture and knowledge regarding buying local throughout the school community.

Question 8

Contact Information

Project Commitment and Oversight

This project was managed by Kera Cherrey, Family and Consumer Sciences teacher of Liberty High School, Raleigh County, WV.

The project was hosted by Liberty High School, Raleigh Co. 700 Coal River Road, Glen Daniel, WV 25844.

You may contact Kera Cherrey at the above address or through one of the following:

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 443-570-8285

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“Integrating West Virginia Specialty Crops into the Public School System through a Farm to School Demonstration Project”

West Virginia University Small Farms Center

\$3,600.00

The project has been cancelled due to inadequate funding to complete the project per the subgrantee. These funds will be reallocated to the *“Community Gardens & Healthy Lifestyles”* project pending approval.

"Fayette County Farmers' Market –Marketing Campaign 2009"
Fayette County Farmers' Market
\$2,000.00

1.

What was the issue, problem, interest of need for your project?

This project was designed to help expand the Fayette County Farmers Market expand its clientele, focusing its marketing campaign especially on outreach to several untapped consumer groups who are at risk for malnutrition and poor food access in Fayette County.

2. **How did you approach each of the issues or problem described in Question 1? Match your project activities to the issues, problems and/or interests above.**

The project originally sought to increase market visitation by two important demographics: recipients of Farmers Market Nutrition Program (FMNP) coupons through WIC and the Senior Coupons program, and residents of Mount Hope, WV where there is no grocery store. After a strategic discussion about how to invest its resources, the market leadership decided in 2010 that it would be most effective to host its second market in downtown Oak Hill rather than Mount Hope, given that Oak Hill is home to more social services organization, the local Senior Center, and a larger population in general. So, resources have been focused in promoting the Oak Hill market (Thursdays 4-7pm) as well as the previously existing Fayetteville location (Saturdays 7:30-11:30am).

We conducted market promotion and increase visitation of at-risk groups in three ways: (1) by creating incentives for these individuals to come to market (2) by using marketing activities that have been successful in the past to heavily advertise our Oak Hill location; and (3) by providing opportunities for our dedicated customers to advertise the market themselves using bumper stickers, posters, magnets and rack cards. We hope that our methods will provide a model for other farmers markets trying to tap into untapped consumer demographics, particular FMNP recipients, across the state. We also gathered some data from customers to learn about their preferences, shopping habits and whether our outreach was effective in targeting various at-risk demographics including Seniors and SNAP customers.

3. **What were the goals of the project?**

Goal 1: To noticeably increase customer traffic at the market, particularly from FMNP coupon recipients *and SNAP recipients*

Goal 2: To gather data from at-risk consumers (FMNP beneficiaries and *SNAP recipients*)

Since our market chose in 2011 to begin serving SNAP customers and has put a great deal of energy into the SNAP program, and because our two markets no longer

include a Mount Hope location, in our 2011 interim report we made slight modifications to the goals for the project. Those changes are in italics above. Serving SNAP customers and having our second location in the more populous town of Oak Hill (where the Senior Center is located) instead of Mount Hope has enabled us to serve more seniors and low-income customers.

4. For each goal listed in #3, provide the following:

- a. Supply the activities that were completed in order to achieve the performance goals and measurable outcomes of the project.**
- b. If outcome measures were long term, summarize the progress that has been made towards achievement.**
- c. Provide a comparison of actual accomplishments with the goals established for the reporting period.**
- d. Clearly convey completion of achieving outcomes by illustrating baseline data that has been gathered to date and showing progress towards set targets.**

Goal 1:

To increase FMNP and low-income customers (especially SNAP customers) at market, the following activities were completed:

Advertising and Promotion

- 1000 Rack cards and 700 refrigerator magnets were printed; these have been placed in senior centers, health clinics, the local library, restaurants and the local Convention and Visitor Bureau, and were distributed via the Fayette County Family Resource Network (this was done with SCBG funds)
- Advertising was placed in Gorge Guide, a local seasonal magazine (this was done with SCBG funds)
- Fayette County cookbooks with FCFM inserts and FCFM bumper stickers are provided as a free gift to shoppers who demonstrate that they are FMNP coupon recipients or SNAP customers *and* who complete a consumer preference survey. (These were purchased with SCBG funds.)
- Outreach was conducted at the Oak Hill Senior Center to inform seniors about the farmers market and provide them with promotional materials.
- Over 600 posters were distributed and hung throughout the county by volunteers (this was done with the markets own funds)
- Volunteers developed and actively maintain the Fayette County Farmers Market Facebook page, which functions successfully as our web site. The page has 523 “likes” --
<http://www.facebook.com/FayetteCountyFarmersMarket>
- More than five press releases were issued; stories about the market were published in the Beckley Register Herald, the Charleston Gazette, WOAY and other news outlets.

- Two Banners for the Fayetteville location were updated and three new signs were created. (Due to reduced SCBG amount, this was done with funding from the Fayette County Commission.)
- A staffed Marketing and Information booth was set up at every market date in Fayetteville, Mount Hope, Montgomery and Oak Hill during 2010 (when all four of these markets were open) and in Fayetteville and Oak Hill during 2011 providing information about the market as well as promotional items. Funding from the Fayette County Commission enabled hiring of a part-time paid market manager during 2010-2012 for this purpose; volunteers also assisted in running the booth.
- FCFM educational booths were set up at Fayetteville's annual Earth Day celebrations in 2009 and 2010

Outcomes: As we describe in greater detail in Question 6, vendor observations suggest that a much greater number of seniors are now using senior coupons at the Farmers Market, particularly at the Oak Hill location which is blocks from the Senior Center. 85% of seniors we surveyed at the local Senior Center were aware of our market and that they could spend Senior Coupons there.

In 2009, vendor reports were used to estimate the year's TOTAL sales at about \$30,000. Due to the resignation of our paid market manager in the middle of the 2011 season, our figures on total vendor sales were incomplete -- but July-August sales alone totaled \$21,318, suggesting that the overall sales were significantly greater for the entire May-October season. The success of the existing vendors during the project period has helped to attract additional vendors. In 2009 we averaged 7 regular sellers per market. In 2012 there have been 15 sellers at most markets.

Generally we feel we have attained this Goal 1 by "noticeably increasing customer traffic at the market, particularly from FMNP coupon recipients and SNAP recipients." As reflected in the list of activities above, we were able to accomplish most of the proposed activities under this goal, with some additional achievements. Since the original grant was authored, we have introduced a system to accept SNAP benefits (food stamps) at the Fayetteville farmers market and have just received USDA-FNS approval to implement the same system in Oak Hill, greatly increasing our ability to meet our goal of serving at-risk customers. So far we have had \$191 in SNAP sales and we have about four customers regularly using SNAP, which is an increase from zero, but there is still work to do in publicizing this.

It should be noted that although we ran the Mount Hope Farmers Market in 2010, after careful consideration we decided to discontinue it in 2011 due to very low customer attendance. Instead we now operate our second market on Main Street in downtown Oak Hill, which is located only about five miles from Mount Hope but receives more daily foot traffic, is the location for our local Senior Center, and is also a stop on the Mountain Transit Authority (MTA) bus line. At the current location in Oak Hill on Thursday evenings, the market has vastly increased its receipt of Farmers Market Nutrition Program coupons and especially Senior

Coupons – so moving to Oak Hill has increased our ability to meet our original goal of serving at-risk customers. We still operate our Saturday Fayetteville location as well, for a total of two markets per week in 2012.

We determined that for liability reasons and due to limits in volunteer capacity, a “Ride-to-Market” hotline was not feasible. However, we have been working with the city of Mount Hope and local senior centers on a possible shuttle to bring customers to the market. (Additionally the new downtown Oak Hill market is located within short walking distance from the Oak Hill senior center, which has greatly increased our senior participation.)

Goal 2:

To gather data from at-risk customers, the following activities were completed:

- Seniors at a local Senior Center were surveyed regarding their customer preferences and whether they knew about the market.
- Paper surveys were distributed at the farmers market.
- An online product preference survey was posted for customers to complete over the winter.
- Incentives were provided for at-risk customers who completed a survey at the market, as indicated above.
- Surveys were collected and compiled.

Outcomes measures: Although the realities and time needed for data collection turned out to be more complex than originally expected, we were still able to collect consumer data that informed us about the demands of our consumers and the success of our project. Due to limited volunteer capacity we simplified our data collection process to include written customer surveys collected at market, an online survey from customers, and estimates of weekly earnings from sellers (which may be a more useful metric of success than estimating customer attendance). A total of 96 customers were surveyed through a combination of paper surveys, an online survey, and structured interview-based surveys with seniors – compared with our target of 70 customers. An example of the standard survey format is attached. The online survey questions were designed by a volunteer and were different from the paper and interview-based survey questions, but still revealed important information about consumer preferences.

We worked actively with the senior center in Oak Hill to promote the market while collecting data on customer preferences. Some of the data we collected is reflected in Question 6.

5. Describe specific results, conclusions, lessons learned, success stories, testimonials or other documentation; use statistics and measurable results here.

Four successes have characterized this project: increasing our traffic of Senior Coupon customers at our Oak Hill market, beginning to serve SNAP customers at the Fayetteville farmers market, developing a better promotional relationship with senior

centers and other social service agencies, and generally increasing sales. All of these factors have strengthened our market and contributed to the increase in our number of regular vendors from 7 (in 2009) to 15 (in 2012).

Moving our second market from Mount Hope to Oak Hill was a good choice as a means of increasing senior participation. Our advertising efforts were important, but as we explain below in #6, 40% of the seniors we surveyed said they knew about the farmers market because it was visible in the middle of town, where they often travel. This is a change from when our markets were on the outskirts of Oak Hill and in Mount Hope; we had fewer senior customers (and fewer customers in general) at that time. Several customers have asked our market manager to begin accepting SNAP at the Oak Hill location as well as our Fayetteville location, which suggests that across the board this is a better location from which to serve low-income customers. Now that we have our USDA-FNS approval for SNAP in Oak Hill, we look forward to implementing a system there.

The customer surveys were useful and revealed some interesting results, including the following:

- Generally our customers (including SNAP customers) ranked Freshness, Value and Ripeness above Price as the factors affecting their purchase.
- The majority of customers surveyed (65%) had no children in their household, suggesting a need to market to families.
- Our small number of SNAP customers were all people under 35, leading us to think about advertising to an older clientele.
- Tomatoes, eggs and beans were the top three most preferred products.
- 79% of these customers are making small purchases less than \$25. SNAP matching programs, debit card machines or other incentives might encourage these customers to increase their purchases.
- Senior customers want to be sure that when they go to market, there are enough Senior Coupon qualified items for them to purchase, meaning that we need to plan more carefully with vendors to have enough produce ready in July.

Partnerships have greatly enhanced our marketing activities associated with this grant. The Growing Together afterschool gardening program at Southern Appalachian Labor School, which was developed in collaboration with the Farmers Market through a previous SCBG grant, supervised youth in conducting farmers market promotional activities, even going door to door in low-income communities of Mount Hope to raise awareness about the market dates. The Fayette County Commission supported our marketing through contributions in 2010, 2011, and 2012, including funds to implement and promote SNAP. The Fayetteville Convention and Visitors Bureau helped us secure a lease on a vastly improved Fayetteville location and provides telephone, electricity, restrooms, coffee and promotional information on market days. This lease offered telephone access which made it possible to accept SNAP in Fayetteville. In July 2011, to promote the move to our new Fayetteville location, the Southern Soil and Conservation District held an extremely successful garden Fair at our Fayetteville market which included extensive advance promotion, live music, canning demonstrations, children's gardening activities, door prizes and more. Over

250 people were estimated to attend, including many new customers, and our vendors reported sales of \$2,006 on that day.

6. What were the long term outcome measures for the project? Describe the progress made towards obtaining these long term outcomes. Did the grant activities contribute toward achieving these goals?

In our last report we proposed some small modifications in the grant outcomes to reflect the realities of the farmers market program. The outcomes were:

1. *By October (2012), we will seek a 30% increase in vendor sales at both locations*

In 2009, vendor reports were used to estimate the year's TOTAL sales at about \$30,000. Due to the resignation of our paid market manager in the middle of the 2011 season, our figures on total vendor sales were incomplete - but July-August sales alone totaled \$21,318, suggesting that the overall sales were significantly greater for the entire May-October season. The success of the existing vendors during the project period has helped to attract additional vendors. In 2009 we averaged 7 regular sellers per market. In 2012 there have been 15 sellers at most markets.

We have also improved our system to track vendor sales by creating anonymous sales reporting cards. We tracked this outcome in lieu of trying to track increases in total clientele attendance, which proved too difficult to track and for which we did not have good baseline data.

2. *Working with Senior Centers (our largest at-risk clientele group), our volunteers will also survey a random sampling of seniors to see whether they have shopped at the market. If over 20% of surveyed seniors heard about the market because of our promotional efforts, we will know our marketing is making an impact in the community.*

A survey of seniors at the Oak Hill Senior Center in 2012 showed that 85% already knew about the farmers market and that they could spend Senior Coupons there. 92% expressed the intention to go to the market in the future. Of the advertising strategies used by the market, our newspaper ads and articles had been the most effective in reaching 30% this group. For 40%, the market's move to the center of Oak Hill (from its other location in Mount Hope and, later, on the periphery of Oak Hill) was a very important factor which made it more visible to residents and had caused many people to begin shopping there. Only one of the seniors was aware of our program to accept SNAP, suggesting that more outreach is needed on this topic.

3. *20% increase in Fayette County redemptions of Farmers Market Nutrition Program coupons*

This outcome proved more difficult to influence. Data on redemption rates was not available for 2008 (before the marketing program began) but the current redemption rate data shows that countywide Senior Coupon redemptions stayed exactly the same from 2009 to 2011. However we strongly believe that a larger percentage of these redemptions are now being spent at the Fayette County Farmers Market because of our marketing efforts and the relocation of our second market to downtown Oak Hill. Anecdotally, both in July 2010 and July 2011, Oak Hill vendors reported an enormous glut of Senior Coupons customers within the first two weeks of the release of the coupons. Customers stood in line to purchase produce and many items were sold out in the first hour, a fact which was brought up by some of the seniors we surveyed. Later in the month, the level of Senior interest posed challenges because some of these customers were arriving as much as an hour early and were pressuring vendors to begin selling to them before the market started. We had never experienced such an intense degree of interest from Senior customers before moving to the downtown Oak Hill site and conducting our marketing campaign.

Meanwhile, it is useful to know how to track countywide redemptions and to work with the local senior centers to increase redemption rates – it will give us a measuring stick for future efforts.

4. *We will conduct written surveys and endeavor to collect data from a total of at least 70 customers.*

A total of 96 customers were surveyed through a combination of paper surveys (56 customers), an online survey (27 customers), and structured interview-based surveys with seniors (13 customers). Of the individuals surveyed, 26 were specifically identified as seniors and 4 identified as SNAP or WIC customers. 21% of the people completing the anonymous paper surveys identified as having \$20,000 per year or less in annual income.

The paper surveys were based on a template given to us by WVU Extension to which we later added our own questions. An example of the standard survey format is attached. The online survey questions were designed by a volunteer and were different from the paper and interview-based survey questions, but still revealed important information about consumer preferences. Some of the results are discussed above.

5. *We will implement a program to accept SNAP benefits at market.*

This has been completed; SNAP benefits have been accepted using a token system at the Fayetteville market since September 2011. Additionally, due to requests from both customers and vendors, we have applied to USDA-AMS to begin accepting SNAP benefits at the Oak Hill location (which requires a separate SNAP license).

7. **Attach additional information including publications, field day announcements, published reports, web sites, photos and other grant activity materials. Be sure to include copies that have the Specialty Crop Block Grant funding statement.**

Attachments:

- Rack card and magnet designs
- Bumper Sticker design
- Cookbook cover and insert
- Copy of customer survey
- Screen shot of facebook page

8. **List a contact person for the project with a telephone number and address for future WVDA or USDA contact.**

Savanna Lyons
Fayette County Farmers Market
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Fayetteville, WV 25840
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“Strengthening Market Access and Development of Specialty Crops through the Promotional Support of the Amma Farmers’ Market”

Amma Farmers’ Market

\$2,000.00

Summary:

The issue addressed was the newly developed Amma Farmers Market providing access to fresh produce to the low income, high elderly populations of Amma and surrounding areas, needed promotional support to increase participation, vendor profits and strengthen its customer base.

Activities and Approaches

- Purchased a certified produce scale for market vendors to sell produce by the pound, thus increasing their profits
- Conducted producer meetings in late winter/ early spring each year.
- Created weekly print advertisements to attract more producers and customers
- Used free radio promotion to announce produce availability and grower meetings and market eligibility requirements
- Created directional and informative signage
- Created brochures about the market to increase customers & promote fresh produce consumption

Goals for the project:

1. Increase specialty crop production
2. Increase specialty crop availability
3. Increase producers’ profitability

Results:

1. Increase specialty crop production
 - Held a producer meeting in Spring 2009, 2010, 2011
 - 14 producers attended-2009
 - 17 producers attended-2010
 - 16 producers attended-2011
 - Conducted High Tunnel Construction Workshop
Winter 2010
 - 78 producers attended training
 - Participants increased knowledge of High tunnel structures & growing requirements
 - 20 producers applied for NRCS EQIP funds. 10 received contracts. \$70,690 funds were provided.
 - 7 high tunnels have been constructed with NRCS funds. 2 have materials, but are not complete.
 - 14 producers applied for the next round of NRCS funding
 - Local NRCS was awarded more funds than any in the state for high tunnels
 - Conducted a High Tunnel Growing Workshop
Spring 2010

- 32 producers attended training
 - 3 high tunnel growers are regular participants at the Amma, Calhoun, Clay, and Spencer Farmers Markets.
- 2. Increase specialty crop availability
 - Customer Surveys Conducted in Summer 2009-50 respondents-most wanted crops tomatoes, beans, and melons
 - Manager observations & Producer Reports for Summer 2010 and Spring 2011-A total of 15 vendors sold an average of 10 specialty crops and an average of 2 varieties of each compared to reports from Summer 2008 and Spring 2009-A total of 10 vendors sold an average of 6 specialty crops and 1.2 varieties of each
 - One vendor devoted his whole operation to growing watermelons, cantaloupes, and cucurbits-Spring 2011
 - One new vendor sell herbs-Spring 2011
- 3. Increase producers' profitability
 - Sales increased as a result of produce scale use-Scales purchased-December 2009-\$323.41
 - 15 vendors at the market in 2011 sell by the pound on most specialty crops as opposed to 10 vendors at the market in 2008 all selling by the count.
 - Scales purchased in fall 2009, Sales from 2008-4,876.34 (4 months) to 2009- \$5,766.65 (4 months), to 2010- \$6,734.50 (4 months), to 2011- \$2,966.50 (for 1 month).
 - Promotional efforts-36 weekly ads promoting the location and times of the market.
 - 3 directional signs purchased and placed
 - 25 informational flyers developed and placed
 - 36 weekly radio spots promoting the availability of specialty crops at the farmers market

Lessons Learned:

- Senior center director where market takes place on a weekly basis reports a 50% increase in center use on the day the market is scheduled than other events
- 30% of the Senior Farmers Market Nutrition Program coupons distributed in the Amma Area were redeemed at the Amma Farmers Market according to Senior center director.
- Vendor participation went from 10 averages to 15 average vendors in 2 years.
- Sales increased \$6,989.66, when comparing 2008 sales, to projected 2011 sales for a 4 month period.

Long Term Outcome/Measures:

- **MO**-An average of two more producers will participate in the market on a regular basis.
 - We have an average of 5 more producers participating in the market on a regular basis.
- **MO**-Sales from the market will increase this year by 10%.
 - We extended the time period of the grant to 3 years. We saw an increase of sales by 159% or \$6,989.66, when comparing 2008 sales, to projected 2011 sales for a 4 month period.

Contact:

Brandy Brabham, 304-927-0975, brandy.brabham@mail.wvu.edu

“Downtown Farmer’s Market Place”

Wood County Development Authority (Parkersburg Farmers’ Market)
(\$5,000.00)

Summary

Downtown Parkersburg was once a vibrant and active center for the community. With the closing of much of the retail space in the downtown area, the City has struggled to again have this vitality and commerce in the area. Public Markets are valued because they create common ground in the community where people feel comfortable to mix, mingle and enjoying shopping in a special environment. The Downtown Task Force and the City of Parkersburg established a Public Market in the downtown area in 2008. It was a way to support local economic development and small business. The application was submitted to expand the market both through increased number of vendors and consumers visiting the market with an expanded marketing program.

Activities/Approaches

The Market planned to approach the continued vitality of the market by developing marketing materials for the newly established market. This marketing mix included print, web and radio/TV advertising.

Results

The goals for the project and subsequent results were:

1. Expand the number of specialty crop vendors at the market to diversify the products available to shoppers

In order to expand the number of vendors at the market, it was imperative that the market become well known in the region. This was done with billboard advertisements and letters to vendors at the Athens and Marietta Farmers Markets inviting them to participate in the market. The City waived a city business license fee if they participated in the market, the vendor fees were low-\$50 for the season or \$20 a month and we provided assistance to the farmers with set up and tear down of the market.

2. At the start of the market in 2009, there were 20 vendors and by the end of the season there were 40 paid vendors. At the start of the 2010 season, we had 25 returning vendors.

The goal was to have an increase in vendors revenue by 20%. On average at the beginning of the season, all the vendors averaged \$850 per day at the market. The average per day by the end of the season was \$1,900. This was more than our 20% goal.

At the beginning of the season, the staff collected weekly gross revenues from the vendors.

2. To increase the number of shoppers at the market through an expanded and aggressive market plan.

As part of the plan to increase the number of customers to the market by 20%, the market not only had a comprehensive marketing and advertising plan but we organized special activities at the market such as entertainment; live radio feeds; costume contests and cooking demonstrations. In addition to billboards, the market set up a web site, produced rack cards, posters and a

PSA for TV. This was done with donated help from Machine Communications. In the beginning of the season, there was an average of 50 to 60 people at the market on a daily basis. Overall the market averaged 110 people a day in 2009. This exceeded our goal of 20% increase in customers.

The goal was an increase of 20% in customers at the market. The number of customers doubled during the season.

During the peak times at the market, the City had two summer youths count customers entering the market for a ten minute period. We also conducted consumer survey during the market season to find out what brought them to the market and what they liked and didn't like. During our grand opening, we had a drawing and in order to enter, we had customers fill out a survey about the market.

Results

The application initially requested \$10,000 and the project was funded for \$5,000.00. With the fees collected from the market and with the SCBGP funds, the downtown marketplace was able to develop a marketing and advertising campaign. Machine Communications, a local advertising firm, volunteered their time to set up the market website which can be found at <http://www.parkersburgfarmersmarket.com>. The company developed the market logo, produced a psa for television, rack cards and billboards. The Market had three billboards for most of the summer for free from PBA Advertising. The Market paid for the vinyl for the boards but the space was free.

As discussed above, the customer base doubled during the season and the vendor's profits almost doubled during the season. In 2008, the market attempted to stay open through late November and it was obvious there was not enough interest or crops by the vendors to participate. The market hours and days of the week have been set and the length of the season has also been set—May through October.

Lessons Learned

During the market season, we occasionally received comments about having extended hours at the market which would allow people who worked in other areas of the city to come to the market after work. There was mixed success with extended hours. We provided entertainment, free popcorn and cooking demonstrations. Attendance depended upon the entertainment and the weather. We did not have a set schedule but we did publicize it through press releases and e-mail blasts. In 2010, the Downtown Farmer's Market Committee intends to have a schedule of extended market hours with more entertainment so that area residents will learn to anticipate these extended market hours (such as the first Friday of the month) and the vendors can schedule these extended hours and have enough produce on hand to handle the extended hours. No SCBGP funds were used for entertainment expenses.

Long Term Outcome Measures

One of the long terms goals for the Farmers Market is for it to become a year round market place and to encourage and foster small businesses related to

the market. The market's success has increased every year from an increase in customers as well as vendors. We have an established core of vendors who have been supporting the market for the past 4 years and this is the group that we hope will eventually make this a year round market.

The activities we funded with the grant have helped the market to establish a presence in the area. There are additional outreach projects the market would like to establish with area restaurants and some culinary programs the market would like to support at WVU-Parkersburg on their downtown campus. In addition, the market is investigating being able to accept EBT cards as well as debit and credit cards. These will increase sales to the vendors and make them more committed to our market.

Contact

Ann Conageski, Development Director
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Summary

The purpose of the proposal when it was submitted was multi-faceted and focused on providing a means for West Virginia farmers to harness the communication infrastructure of a statewide marketing website to achieve a greater economic prosperity and thereby begin to decrease the \$6.8 billion agricultural leakage of farm product dollars that West Virginia experiences each year (Tom McConnell— Risk Manager, August, 2008). The program activities as outlined in that proposal were to be carried out by a team comprised of Collaborative for the 21st Century Appalachia, Pierpont Community and Technical College and WVU Extension agents.

That proposal built on the work of two previous WVDA Specialty Crops grants which Collaborative 21C used (1) to construct an e-market agricultural website www.wvfarm2u.org, and then (2) to provide a help desk assistance to farmers to sign up on that site that provides a bulletin board available to the public where they can publicize and sell their farm and artisan products.

The proposal was to take the site to a whole new level of service by

- (1) Providing the needed refurbishing to the site which will allow it to function in a way that meets the stakeholders needs.
- (2) Reaching out to the next tier of farmers to get them registered. By providing technical assistance through a help desk and call in service, the farmer him/herself does not need to be techno-savvy computer literate.

Activities/Approaches

Discussion forums—At least 15 were to be created. These were to allow for farmer-to-farmer dialogues on specialty crops and issues related to them. There were to in excess of 35 discussion threads.

Three other outcomes were specified in that clarification letter but no funding was provided for the site modifications needed to make them happen.

1. Increased Functionality--10 transactions a month as customers utilize this new feature.
2. New Categories in Buy Local Section—we anticipate in excess of 25 to sign up. For example, in state greenhouses and nurseries could list their products just like farmers and be easy to search for. Grocery stores--that purchase goods from local farmers and then re-sell those local products—could also sign up.
3. Farmer to Chef—10 transactions a month as chefs process transactions.

Results

WVU Extension agents were interviewed by calling every county agent to solicit referrals of potential farmer registrants with the expectation that there would be 50 new farmers signed up. Agents were also asked about suggestions regarding refinements to the site to better serve farmers' needs.

The interviews were conducted and 61 farmers actually registered on the site as a result of this connection—in excess of the 50 called for.

Funding from the USDA specialty crops grant also provided dollars to create discussion forums for farmers. These exist in the following 15 groups and sub categories. This is the number that was called for.

Categories:

- A. Farmer to Chef
- B. Farmers Markets
- C. Plants
 - a. Seed Exchange
 - b. Fruits and Vegetables
 - c. Herbs
 - d. Forest Crops
- D. Ag Policy
- E. Value Added
- F. Barter and Trade
- G. Best Practices
- H. Sustainable Practices
- I. Season Extension
- J. Green Manure
- K. Fertigation

Given the fact that funding for these projects came through in mid-August and then the forums themselves and website modifications could not be completed until the beginning of November just shortly before you begin the holiday season, we were quite pleased by the amount of traffic. There are 38 notations.

After reviewing the responses, we now expect that notations may well be of a seasonal nature. For example, as described above, the forums became available in November. There was not a single entry in the farmers' markets forum—an area where we might expect substantial interest—but by that time the farmers' market season was already over essentially, so it will be interesting to see next year whether there is interest in that topic.

What was more important than the number, we thought, was the nature of the discussion and inquiries. These entries actually provide information to West Virginia farmers and growers, but they can also provide significant feedback to

the Department of Agriculture as to areas where there is specific policy and regulatory information needed by farmers—as described below.

The other category with the second highest number of entries was value added (with 5 entries) and the focus was on where to find the rules and regulations for how to establish a commercial kitchen. One of the discussants indicated that the source for this information is DHHR but that they could find no information regarding it on the Department of Agriculture site.

This is one of the instances where information on the site in the discussions has value to the Department--from the standpoint that we now know that farmers would value information on the West Virginia Department of Agriculture site that points them to these regulations in DHHR, and possibly even a link that would allow them to get there more easily.

Long Term Outcomes

Since farmers signed up to be listed on the e-market website, there is the on-going potential for them to market and sell their products to a much wider audience.

As noted above, as a result of the interviews with Extension agents, 61 farmers actually registered on the site as a result of this connection—in excess of the 50 called for. That means about 20% more than expected.

It was not surprising after the fact, but it was not anticipated ahead of time that people were more drawn to indicating where they had problems in the forums than in using it to share best practices.

The website now has 1,600 hits a month—so this means that the farms who signed registered have that increased opportunity to market and sell their products.

Contact

Allen Arnold, Director, Collaborative for the 21st Century Appalachia, 1511 Pennsylvania Ave., Charleston, WV 25302

“2009 State Fair Recipe Challenge”

West Virginia State University (through Mountain RC&D)

(\$1,000.00)

(Note: Although the 2010 winner provided a qualified product to be covered under the Specialty Crop Block Grant Program, the business has yet to claim its prize package and complete business development activities to warrant a release of funds. The 2011 winner was in a non-eligible category. These funds will be reallocated to the “Community Gardens & Healthy Lifestyles” project.)

Project Activities

The 2009 Recipe Challenge was held as part of the State Fair of West Virginia. Several entries specialized in entries that focused on specialty crops. Unfortunately, the winner submitted a non eligible product (cheese) and was ineligible for the grant funds and its corresponding training (Better Process Control School).

A project extension was granted and the 2010 winner is currently in the process of developing a high energy bar with fruit (strawberry, cherry, etc.) filling qualifying it as a value added specialty crop.

This project was not submitted for funding in 2010 due to the nature of its unpredictability of a winner manufacturing eligible items.

Problems and Delays

See above note about ineligible project.

Future Project Plans

Extension of project to 2010 event.

Funding Expended to Date

Funds for this project have not been disbursed.

“Developing a Packaged Bee Source in West Virginia”

West Virginia Beekeepers Association

\$4,000.00

Summary

The grant was very helpful introducing in-state bee package and nucleus producers and keeping extremely defensive bees (with possibly Africanized genes) from being imported.

Besides encouraging the development of new agricultural businesses (bee package and nuc producers), the cost-share grant assisted 94 beekeepers in purchasing bee colonies-either packages or nucs. The results were less cost for the bees and for the fuel used in shipping/picking up the bees, and there was less stress on the bees while in transit. As the producers were often at a considerable distance from the recipients, several beekeeper groups had one or two of the group volunteer to pick up the colonies to further save time and fuel. A side benefit of the grant was the fostering of cooperation among the beekeepers.

Since postage, paper, printing, stationery and advertising were donated, the entire grant amount (\$4000) was distributed for the 134 (\$30)cost-share units. The grant administrator excluded himself from participation because of conflict of interest.

Of the 83% return of evaluations, better than half had attached comments and suggestions. Appreciation of the grant and satisfaction with the grant administration and the bees gotten were most frequently mentioned. As Milton Freeman of Barbour County put it: “Excellent job! I would like to extend my thanks to the WVBA and the (WV) Department of Agriculture for helping the beekeepers with our constant struggle with beekeeping.”

Perhaps the most important long-term results of the grant are the beekeepers realizations that there are bee producers in the state, and they provide good quality, easy- to- manage honey bees.

Activities/Approaches

This cost-share grant was requested to deal with the problem of bringing package bees into West Virginia from areas where Africanized bees were becoming established, particularly in the South. The Africanized genes make the honey bees much more defensive and difficult to manage. The second purpose of this grant was to encourage and assist in the development of an in-state package bee and nucleus colony industry. This grant would help the local bee producers’ businesses and help beekeepers with in-state sources of less defensive bees.

Bee producers were contacted as to their willingness and ability to supply the required bees for state beekeepers. Information about the grant and producers was announced through the WV Beekeepers Website, WVBA Newsletters and an information-application packet.

Most beekeepers were already aware of the problem with Africanized genes in "imported" bees but not aware of the availability of locally produced packages and nucleus colonies; so the main thrust was to advertise the producers as well as the cost-share grant. This was done through 2 articles in the WVBA Newsletter and announcements on the WVBA Website. The cost-share idea was to encourage the beekeepers to have a more personal investment in the project.

The goals were:

- A. Develop less defensive and more manageable bee colonies by using locally produced bees as opposed to the more defensive bees with perhaps Africanized genes coming from producers in the South.
- B. Make state beekeepers aware of any local bee package producers and more aware of nucleus colony producers within the state.
- C. Encourage patronage of these local bee producers by West Virginia beekeepers.
- D. Strengthen the local businesses with an increased customer base.

Results

- A. Making beekeepers aware of locally produced bees, particularly packaged bees was critical and done through newsletters, information-application packets and the WVBA Website.
- B. Beekeeper awareness was strengthened through short presentations by the grant administrator at local group meetings.
- C. Patronage of local producers and participation was encouraged through financial incentive namely, the cost-share grant..
- D. 134 units(@ \$30 each-(grant reimbursement) provided approximately \$9380 In revenue to local producers (average cost per unit c. \$70.) and assured contacts for coming years.

The entire grant amount, \$4000, was used for the cost-shares to directly help the beekeepers with their bee purchases. Other items used in the grant were donated (such as publicity, postage, stationery, paper and printing).

122 beekeepers applied for package bees or nucleus colonies and were approved and notified. 28 of this number withdrew leaving 94 sharing in the \$4000 grant. 134 cost-share units of \$30 were distributed among the 94 participants.

94 evaluations were sent out with the cost-share checks. Of these 78 (83%) were returned indicating general satisfaction and appreciation for the grant.

(\$4000 original grant -\$1 deducted for Credit Union membership= \$3999. +\$21.66 dividends=\$4020.66 [134 units x \$30] -0.66 extra at the end which was used to help with postage for mailing final report).

There were 2 secondary lessons from the grant:

1. Beekeepers in our state want their new bees between April 1 and April 15 so they have the best chance to develop strong colonies and possibly produce a crop the first year. About half of the 28 who withdrew from the grant did so because the bees were not available until the beginning of May. Unfortunately nature, including cold, damp spring weather, doesn't always cooperate.
2. Beekeepers are very frugal. Some weighed the value of their cost- share unit against the cost of fuel to pick up their unit. A few felt a long trip for one package or nuc was not economically feasible.

Long Term Outcomes

Of the 94 participants about 70 had been unaware of the availability of package bees in West Virginia. This has now changed.

When inspected through the summer, 2010, grant colonies appeared gentle and easy to handle.

The 2010 season was hectic for the package producer and almost more than what could be handled.

Carry over to 2011 (this year) was good with many additional sales but especially with Nuc colonies in early spring.

Contact Person:

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"Local Queen Bee Production"
West Virginia Queen Producers
\$5,000.00

Summary

The project was to develop a honey bee queen industry in West Virginia. The invasion of the Africanized Honey Bee [AHB] into the areas of queen production in the Southern United States required the development of a queen production industry further north where the AHB could not survive the winter and produce vicious 'Killer Bees'.

Activities/Approaches

We approached the issue by establishing a not for profit 501(c)(3) agricultural cooperative. The grant money was used to do training, education, equipment purchases and breeder queens for our members.

The goals for the project were to establish a new agricultural industry to supply replacement queens and bees to registered West Virginia beekeepers.

There were five trainings provided with the grant money which the queen producers attended, and specifically for the queen producers. Training programs addressed issues including good management practices for queen production and cultivation of productive hives and brood stock. Additional topics included wintering and reproduction techniques, genetic tracking, and disease identification and management.

The base stock for project were purchased as both demonstration and base hive material for future industry development and growth. The species selected were chosen for their hardiness and climate adaptation. Purchase of this equipment/animals was necessary to begin an industry that eventually spawned 16 new West Virginia specialty crop agribusinesses.

Results

The goals listed were achieved by training sixteen (16) West Virginia commercial queen producers to provide queens and bees to registered West Virginia beekeepers.

Lessons Learned

The specific results of this grant were to provide over half of the queen bees purchased during the grant period for registered WV beekeepers. This allowed the money to remain within the WV agricultural community that would otherwise had been spent on out of state queens and bees. The WVQP as a result of this grant have increased their market share during each of the years

the grant has been in effect. Our producers have received dozens of testimonials and success stories about the quality of the WV queens and bees that have been produced under the grant.

Long Term Outcomes

The long term outcomes of the project have been to firmly establish sixteen (16) commercial queen producers in WV which previously had none. The grant activities contributed significantly to achieve this goal. There were no commercial queen producers prior to this project and sixteen are currently producing queens commercially as a result of the grant.

Contact

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"The Viability of Daylilies Using a Coldframe"

Hillbilly Daylilies

\$4,047.00

Summary

Commercially cultivated daylilies are almost exclusively grown in fields and therefore primarily sold only when customers come directly to the field. Plants are usually dug up at the time of purchase and need to be replanted soon after. By using a cold frame to enhance the viability of daylilies, we felt that growers would be able to provide a safe and secure shelter for potted daylilies over the winter time. Plants could then be potted in late summer and given sufficient time to become established in pots before the dormant season. However, plants in containers are more vulnerable to extremes in temperature. Without a place to put them during adverse winter weather, i.e., inside a cold frame, the daylily roots would freeze and the plants would not survive the often cold, windy winter weather conditions in this part of the state. By increasing the viability of potted daylilies, this project would allow for an expansion of daylily marketing and sales at such outlets as farmers' markets and gardening centers. This would give customers more options for purchasing daylilies for replanting as well as for gifting daylilies to friends and family.

In addition, we wanted to put on an educational agri-tourism marketing event that we called a "Bloomin' Bash." We felt that it would be an important and timely way to focus on and raise the community's awareness of daylilies in the area and offer educational workshops and other information about daylilies and various aspects of gardening.

This project was designed to develop and demonstrate innovative growing techniques to sustain and improve the viability of daylilies and enhance the market competitiveness of daylilies as a West Virginia "specialty horticultural crop." The project developed and utilized a cold frame production method to sustain daylilies in adverse environmental conditions, extend the selling season, develop visual marketing methods, and increase sales. The project also put on two agri-tourism events – now an annual event called the "Bloomin' Bash" – which helped to promote daylilies as a locally grown product and provided education on innovative growing techniques, including seminars and workshops on the use of a cold frame for sustaining daylilies and other gardening/cultivation tips and techniques, as well as food, entertainment and other activities for families and children.

Activities & Approaches

The initial phase of the project involved a lot of research into and development of the coldframe construction and the process of growing daylilies inside of it. We initially expected to purchase a 15' x 48' Catamount Style Coldframe (Growers Base Package) from Rimol Greenhouse Systems. However, after reviewing the various options, we purchased a Golden Pacific 24' x 45' Coldframe. It was clear this style frame with a gothic pitch and square tube steel would prove to be much more durable under snow load than the Rimol. The coldframe was constructed with 5' bow spacing, 4' roll-up sidewalls, and two 5' manual roof vents necessary for ventilation. We worked a total of 97 hours and recruited the help of 6 additional people to attach the poly covering and sidewalls.

The actual potting of daylily plants began September 2009, before the cold frame was built. The issue was to demonstrate how containers would be used for sustaining daylilies after the spring and summer season going into fall and winter. The process involved digging and dividing plants in the field, then transferring divisions to two gallon pots with ProMix. The pots were placed in a holding area until November 2009, when they were moved into the completed coldframe.

The first annual "Bloomin' Bash" event was scheduled on July 11, 2009. There was a tremendous amount of planning involved starting in October 2008. We recruited 27 volunteers for a variety of jobs, such as field prep, greeters, gate keepers, parking attendants, daylily field guides and sales people, daylily diggers, baggers and taggers, office help, order processor and involved several local area organizations. The Berkeley-Jefferson Master Gardener Association set up an exhibit offering valuable information on gardening techniques, composting, and answered questions for attendees. The Martinsburg Berkeley County Convention & Visitors Bureau provided a mini grant to assist with promoting the Bloomin' Bash and helped with booking local bands for the event. The Morgan County Extension Agent hosted the kid's tent to provide fun educational projects for children. We prepared flyers that were distributed by many local businesses and utilized several forms of marketing to receive publicity for the event. The plan for the event included daylily field tours and sales, food, entertainment, educational workshops, local crafts, gardening products, and a display of antique tractors and steam engines. We also worked with the Big Brothers Big Sisters of Berkeley County because a portion of the event entrance fee and daylily sales that day were donated to the organization.

Results

The overall goals of this project were:

to demonstrate an innovative growing technique that can sustain and improve the viability of daylilies and enhance the market competitiveness of daylilies as a West Virginia "specialty crop."

to develop new and efficient ways to promote and market more sales of daylilies, i.e., as attractive gift plants in containers for floral displays in non-field settings.

to plan, organize, and implement a unique, fun-filled, and educational agri-tourism marketing event focusing on daylilies, in collaboration with several related local area organizations.

The first two goals were intended to create new economic opportunities for growers and others by expanding daylily sales at farmers' markets, gardening centers, and other year-round plant sales outlets. They were also intended to provide more options for customers to buy potted daylily plants year-round.

The third goal of a "Bloomin' Bash" event was intended to include educational seminars and workshops on daylilies and other gardening and cultivation tips and techniques, as well as food, entertainment and other activities for families and children. It was expected to be not only a community event but also attract people from other areas interested in daylilies as a unique specialty crop.

The innovative growing technique involved potting daylilies and using the coldframe to sustain the plants through the winter months and to promote growth earlier in the season than field plants. This goal was achieved with the construction of the cold frame and the potting of several varieties of daylilies in containers. A tremendous amount of time and effort went into planning, developing, and implementing both the container planting techniques and the growing environment in the cold frame. The key factors involved getting the proper soil and fertilizer, inside temperature, watering cycles, etc. It was a very labor intensive activity but once learned can be done efficiently.

In developing new and efficient ways to promote and market more sales of daylilies, we participated as a vendor at the Valley Earth Fest April 18, 2010 and the Shepherdstown Panhandle Earth Day Celebration, April 24, 2010, selling potted daylilies and promoting the product in a non-field setting. These events were also great exposure for Hillbilly Daylilies and allowed us the opportunity to explain field procedures and the use of the coldframe to provide potted plants.

The "Bloomin' Bash" at Hillbilly Daylilies has become an annual event on the weekend after the 4th of July. The first one was held on July 11, 2009, the second on July 10, 2010, and the next one will be on July 9, 2011. The first two have been huge successes and we expect another great event this year. The most important factors involved in having these events be successful included advanced planning, meticulous organization, and efforts on the part of volunteers and related local

area organizations like the Martinsburg Berkeley County Convention and Visitor's Bureau in helping to promote and market the event and the Berkeley Jefferson Master Gardener Association in assisting with the educational aspects of the event. In addition, we updated the Hillbilly Daylilies web site with a separate page for information about the "Bloomin Bash." We also did a lot of advertising with flyers and media including several very positive news articles about the event.

Lessons Learned

The hypothesis of the project involved using a cold frame to enhance the viability of daylilies so as to provide a safe and secure shelter for potted daylilies over the winter time. Because plants in containers are more vulnerable to extremes in temperature, we felt that plants potted in late summer had to be given sufficient time to become established in pots before the dormant season. But without a place to put them during adverse winter weather, i.e., inside a cold frame, the daylily roots would freeze and the plants would not survive the often cold, windy winter weather conditions in this part of the state. By using the cold frame, we have been able to increase the viability of potted daylilies. This project has shown that it is possible to expand daylily marketing and sales and give customers more options for purchasing daylilies for replanting as well as for using and/or gifting them for garden additions.

The planning, development, and construction of the cold frame involved a lot of time and effort which resulted in a structure that has become a model for indoor daylily cultivation. The most important lesson learned is that it is possible to enhance the viability of daylilies and expand daylily marketing and sales by using a cold frame technique for growing them during the harsh winter weather in this part of West Virginia.

Some of the other specific results of the project included the potting and storing of 375 containers of daylilies in the cold frame in November 2009. By about mid-February 2010 the daylilies in the cold frame started growing in comparison with the field daylilies which were still in a dormant stage. The photos in attachment 6 show the growth comparison of field plants to potted plants. (See attachment 6) When we participated at two major local area events selling potted daylilies that were started in the cold frame, we sold 45 containers at the Valley Earth Feast and 62 containers at the Shepherdstown Panhandle Earth Day Celebration.

Finally, the two "Bloomin Bash" events were outstanding successes. In 2009, we had 565 people attending and in 2010 attendance increased to 836. We sold 438 daylilies in 2009 and in 2010 we sold 522 bare root plants and 114 potted daylilies.

Long Term Outcomes/Measures

The major long-term measurable outcomes for the project were:

- sustained and/or improved quality, yield, and marketability of daylilies when cultivated in containers in a cold frame with at least one other new producer adopting the cold frame technology that the project demonstrates for daylilies or for other ornamental horticultural products.
- increased availability of daylilies as potted plants to the public such as a ten percent increase in potted daylily plants available for sale at farmers' markets and gardening centers in the region.
- enhanced profits for daylily growers and others selling potted plants grown in a cold frame such as a ten percent increase in profits as a result of additional sales of potted daylily plants.
- a successful "Bloomin' Bash" event in terms of the number of people attending and the value they receive in terms of valuable information, entertainment, and family fun with at least 50 people attending the event and more than 75% of them having a positive and informative experience as measured by feedback.

Although it is probably a bit too soon to determine the long-term impact of the project on the various outcome measures, it is clear that there has been progress towards them. There has been a lot of interest generated among both the public and some other daylily producers with regard to cultivating potted daylilies in a cold frame. Over the past two years, the availability of daylilies in containers has increased by at least ten percent over the number previously available at area markets and events. The number of potted daylily sales has also increased by at least ten percent between 2009 and 2011, and they are expected to increase again over the next few years. And, finally, the success of the now famous, annual "Bloomin' Bash" event has been way beyond our expectations in terms of attendance, sales, educational services, and family fun. We know that the 500 to 800 people in attendance in 2009 and 2010 not only exceeded our wildest imagination but from the informal feedback we received it is clear that virtually everyone had a positive experience. Grant activities certainly contributed to the achievement of these goals and we appreciate the assistance and cooperation we received from the West Virginia Department of Agriculture.

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"Production of Heirloom Tomatoes on Reclaimed Mining Land and their Feasibility in A Seasonal Food Service Market"

ACE Adventure Resort

\$3,000.00

1. The issue, problem and interest of need for this project was that ACE Adventure Resort is a large user of tomatoes. These tomatoes, while always expensive, are sometimes unavailable. ACE had space to grow tomatoes but this was strip mined land and it was unknown how the better tasting heirloom tomatoes would grow here.
While it is true that ACE Adventure Resort was the primary and most visible beneficiary of the results of this grant, thousands of guests at the resort also benefited. The high tunnel was strategically placed near the Stables for two reasons. The original and primary reason is discussed later. An ancillary and unexpected result of it being placed there is that many of the Stables' guests came to see what was happening. I personally explained about the grant and the success of the operation. As guests at a rafting company, and only exposed to what they read in newspaper or online, they all held a totally negative view of strip mines. They had no idea that a strip mine could be turned into a productive enterprise with very little work. A second group benefited in that when the tomatoes were served, signs were placed about their origin. This knowledge coupled with the taste was a benefit to many guests.
2. The issue and problem of not having adequate supplies of tomatoes was met by construction of a high tunnel which would supply cover for over 220 tomato plants and other ancillary plants such as basil and snow peas. This question is further explored under the response to how goals were achieved.
3. The goals for the project was to analyze and develop a production plan and infrastructure plan for growing heirloom tomatoes on a previous coal mine site to determine the feasibility of growing the tomatoes and of providing the product to the resort food service.
4. The soil was initially turned deeply with a mini excavator. This was followed by tilling with a rotary tiller purchased under this grant. Soil samples were then sent to West Virginia University for analysis and recommendations. Nutrients were added as specified by the University. Additional nutrients in the form of horse manure, without any decay time, were added to selected areas. Additional calcium was added periodically

as calcium deficiency was continually detected. A support structure was added by using surplus tent poles that would have been thrown away. Other support was by leftover reinforcement road. Irrigation was provided by soaker hoses overlain by black plastic. A blockage of some of the morning sun was achieved by the planting of snow peas. This was so successful that the snow peas program will be expanded to shade all the tomatoes from the morning sun.

5. The most recent year of the program provided the best results for the program and provided the best lessons. Over 1,670 pounds of tomatoes were delivered to ACE's kitchens. More than this was produced but the staff campground adjacent to the high tunnel made it impossible to determine the total amount grown. Additionally, with each delivery of tomatoes to the kitchens, basil (enough for the entire season) was also delivered. The most important lesson learned and most frequently neglected was irrigation. The irrigation program with simply spraying and then progressed to soaker hoses. It is felt that a drip system, probably utilizing modified soaker hoses, will be used in 2012.

6. The long-term outcome measures from this project show that ACE Adventure Resort can dramatically reduce its dependence on purchased tomatoes and other herbs and vegetables. A savings of about \$2,000.00 per year is anticipated. Additionally, this project has alerted ACE Adventure Resort to the cost savings of growing its own food on the vast properties it owns.

The most measurable outcome was that during the harvesting season the Food Service Manager reported buying of two of normally three cases of tomatoes per week was avoided. Additionally a green salsa from a Brazilian recipe (brought to us by the Brazilian wife of our Food Service Manager) was created that we are still using over winter later. Finally an ancillary but still measurable outcome was the production of hot peppers, yellow squash, and cucumbers. While not technically a part of the grant, they would not have been planted and harvested without the grant.

Unfortunately the suggestions for soil conditioning received from West Virginia University, along with the actual additives, were lost in the Talheim Condo fire in Building A in Canaan Valley. From memory, four twenty pound bags of 5-10-10 fertilizer were used.

After the first year, the only additive was fresh (even though not recommended by the literature) horse manure. In year two the manure was added to a depth of three inches over the entire high tunnel. This was plowed into the soil with a rear mounted rotary tiller with eight inch

tines. Crop growth was almost identical to year one. Both years suffered from some minor isolated calcium deficiency. No additive was added for year three. Manure is being stockpiled for future use. Confirmation of manure only has been provided by an independent garden on the same property. Jeff Cogle has used decayed manure for a tomato garden with similar great success.

Year two used soaker hose irrigation as opposed to hand held spray in year one. No differences in growth were noticed as water was added only as visual inspection required.

Results and Recommendations:

The use of overwhelming amounts of horse manure, decayed or fresh in spring, efficiently mixed with the soil is more than adequate for nutrients for tomatoes. Some additional calcium may be added but is not essential.

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“Increasing Production Efficiency and Marketability in Commercial Vegetable Production”

Cole Farms

\$5,000.00

Summary

This project focused on improving efficiency, increased marketability of product, increased food safety and increased awareness in specialty crop production. The project expanded production, utilized a water wheel planter and implemented a packing line with produce washer. A strong outreach component modeled the development of the operation, field days were conducted and data was collected to demonstrate efficiency expectations.

Activities

With grant funds, a water wheel planter, washer, sorter and packaging line were implemented. The water wheel planter allowed for more efficient planting sessions. The punch wheel on the planter makes uniform holes and uniform spacing for the product to be planted. Once the hole is made, it is then filled with water, eroding the soil, and making a mud hole. Then the plants are set by hand in the hole. The plant is then pushed into the hole allowing the mud to come up from the bottom and along the sides to set the plant. After the product was harvested it was taken to the washer, sorter, and packaging line. The product was washed and then preceded down the assembly line to be sorted according to size. After the product had sufficiently dried, it was then packaged, and taken to market.

Results

The goals of the project were to:

Reduce labor cost and increase production efficiency in commercial vegetable production through management practices and mechanization. Current labor hours are estimated at \$1,000/acre utilizing manual labor.

Improve product safety with a produce vegetable station and customer satisfaction/marketability through grading and product preparation.

By implementing the water wheel planter it allowed the project to decrease planting time. The water wheel planted more acres in a shorter amount of time as compared to hand planting. It also allowed for more consistency in plant spacing thus contributing to the uniformity in the plants. Also, by watering the plants with the mechanism at the time of planting aided in the reduction of labor costs. Labor costs before the mechanization per acre were approximately \$1,000. With the water wheel, planting time is reduced to less than two hours with a labor burden of approximately \$100 reflecting a \$900 savings in labor.

The improved product safety and marketability through grading and product preparation was achieved through the washer, sorter, and packaging

line. The product was first washed to remove any debris that may have come into contact with product. The washing also improved the sanitation of the product. Then the product was sorted according to size and graded. The grading procedure sorted according to size and allowed for a more uniform package. By using these mechanization practices, it decreased labor costs. When the product was presented at market it provide the customer with a more visually appealing product that was clean and sanitary.

Lessons Learned

Cole Farms entered into the Fish Hawk Acres production collaborative and the water wheel technology is being cooped throughout the network of 14 farms on at least 70 acres. West Virginia University Extension Horticulture Specialist Lewis Jett has conducted two workshops at the growing site along with two trainings by members of the New Appalachian Farm and Research Center. Approximately 75 people have been trained at these sessions.

Long Term Outcomes

The long term outcome of the project was to present the public with a clean, uniform and desirable product while increasing production efficiency. These goals were met by introducing the water wheel planter at the beginning of production and the washer, sorter, and packaging line at the end of the production.

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"Implementing Agritourism in West Virginia with Specialty Crops"

Garrett Cole (Cole Farms)

\$5,000.00

Summary

This project was designed to create awareness of specialty crops by creating educational materials to be used with visiting school children to measure and teach production agriculture of specialty crops. This FFA-based project features a fun and diverse learning environment.

Activities

The project provided a corn maze and pumpkin patch that was marketed to the public. It provided an educational experience to various school districts through North Central West Virginia and other local groups, organizations, and the public. These groups were able to witness firsthand the production of the corn maze, pumpkin patch, and various other specialty crop products on their visit to the farm.

Marketing for the maze and pumpkin patch provided a classic model of how social media marketing and traditional messages can work together. A Facebook page and printed flyers distributed to area businesses, churches and youth organizations were developed. The 1,300+ visitors in 2010 referral/advertising effectiveness rates with approximately 10% social media learning of the event through social media, 20% traditional (flyers) advertising with the remaining participants attending based on word of mouth/previous participation.

Results

The goals of the project were to:

- e. Increase awareness of agriculture through specialty crop production in agri-tourism
- f. Diversification of specialty crop production and increased revenue through additional value in the form of an on-farm experience for school groups

The increased awareness of agriculture was achieved by planting a corn maze and pumpkin patch. These specialty crops were presented in a manner that allowed groups and individuals to tour, experience, and develop an understanding of their production. Photos and articles of the events were published. A Facebook page, Cole Farm's Maze Fest, was also developed and students were encouraged to interact on it as fulfillment of important WV Department of Education objectives on utilizing electronic media.

The on-farm experience was achieved by the development of the corn maze. It allowed school groups to tour the maze during the week and was open

to the public on weekends. Two different mazes were put into production allowing for one to be geared towards children and the other towards adults. The pumpkin patch was also made available to children and school groups, and they were allowed the experience of picking their own pumpkin. For our first season, just over 1,300 guests participated in the activity demonstrating the project effectiveness and educating children about specialty crops.

Lessons Learned

The experience received by local groups, school children, and the public allowed for an increased awareness in specialty crop production. The hands on experience gave them a better understanding of how these crops were produced and maintained. Children drew pictures about their experience and used language arts skills to comment on their experience. Teachers responded that the visit to the maze provided important curriculum experiences that were especially useful in future lesson plans (language arts at the elementary level and science and math outcomes at the higher grades---i.e. how many corn kernels to plant the field, amount of actual costs/overhead costs in economics, etc.)

Long Term Outcomes

Our long term goal for this project is to increase the amount of visitorship to the farm each fall when we host the Cole Farm's Maze Fest, not just to school groups but to the general public as well. A residual side benefit is having the corn to sell at our markets and fodder bundles to sell for decorative use after the Maze Fest is over. In order for the corn maze to be planted, the total maze area proved to be massive and dictated the purchase of a corn planter. This corn planter is being used cooperatively by 14 other farms in the region. While additional monies were spent out-of-pocket, the overall enterprise analysis showed that this FFA enterprise was a sound investment with educational return to the school and community. Other progress for the future includes building human capacity with community, the school children, FFA and the local 4-H chapter. The maze will continue to provide school children and families with an educational experience with extended hours and more activities in the future.

The cost of the corn planter (less than \$5,000.00) was submitted for financial fulfillment of the grant activities. Additional non-submitted expenses exceeded the grant allocation representing a significant project investment on the part of the subrecipient.

Contact

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"2009 Fresh Feast"

Fresh Feast From the Farm

\$3,000.00

Summary

The original model for Fresh Feast on the Farm struggled during 2009 in large part to the economic recession. Only one Fresh Feast on the Farm premier event (Summer) was held in July 2009. Two premier events (Spring and Fall) were cancelled due to low reservations (less than 10). Only one event during the summer of 2010 was planned. This project attempted to provide consumer awareness to local specialty crops in an agritourism and upscale setting presentation. The events served to "tell" the story of local specialty crop production through grower/consumer interaction and menu focus. To combat a downturn in 2009 interest, the applicant attempted market research and result implementation. The model for this type of specialty crop promotion in this region changed from the original grant application but provided a successful business adaptation model for future events and enterprise development.

Activities/Approaches

A survey was taken at the Charles Town Farmers Market in July 2009. The survey results were included with the annual report and will be summarized with the final report. The question posed was, "How have you heard about the Jefferson Farms Market?" it is obvious that street signs/banners and word of mouth were the most significant methods of advertising. Fresh Feast on the Farm has the lowest recognition. An initial conclusion of this simple survey is that the two aforementioned methods of recognition are the most effective.

It appears that Fresh Feast is following in this path of recognition. In 2010 there were more direct inquiries regarding the next Fresh Feast event than during the previous two years combined. This also leads to the conclusion that partnership with local organizations interested in specialty crop events and promotions can bring their own set of event prospects making the chances of event success more likely.

The website www.FreshFeastontheFarm.com was redesigned to include more graphics and a catering option. The new site is easier to manage by the owner, rather than using a web designer. Feedback from past Fresh Feast diners will be included on the website—the comments have been collected but not posted at this time.

A Fresh Feast Facebook Fan page was established which is linked to the website. Currently there are 83 fans.

Results

Despite the economic delay, numerous catering opportunities presented themselves in 2009 that were in line with the specialty crop promotion via

upscale catering and menu presentations. The Chamber of Commerce and Farm Bureau picnic, Farm Bureau annual meeting, Leadership Jefferson Agriculture module luncheon and Leadership Jefferson Tourism module luncheon, WVDA training luncheon for Local self Reliance luncheon meant more number than the 2 lost Fresh Feasts benefitted from the activities of the grant.

In recognition of the financial times, the price for a Fresh Feast premier event was decreased from \$100 to \$75. While the grantee prefers the “premier” events to standard catering because it creates more direct contact with agriculture, the catering events have generated more interest in the premier events.

Long Term Outcomes

Productions showcasing local specialty crops has proven popular and is an effective way to create grower/consumer relationships. Unfortunately, production costs combined with economic constraints make the existing format difficult to present. Providing the same information and access to the specialty crops in a smaller venue with less overhead (i.e. catering) has proven to be effective while encouraging local food service establishments the incentives to incorporate specialty crops with the educational experience. One large, well planned event seems to be the economic threshold for the area until the economy provides additional disposal revenue resources for the clientele targeted by the “Fresh Feast” experience.

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Section I.

Pumpkins are widely grown in West Virginia often on sloped land which is vulnerable to soil erosion. The conventional method of producing pumpkins involves plowing, multiple disking and cultivation. Heavy, leaching rains can cause significant erosion of valuable topsoil and leaching of fertilizer nutrients into surface water.

Weed management is critical for successful production of pumpkins. However, there are relatively few labeled herbicides for commercial pumpkin growers. Diseases such as fruit rots and foliar diseases can also significantly reduce marketable yield of pumpkins and are often initiated by rain-splashed soil.

Conservation or no-till crop production has been widely used for many agronomic crops such as corn, soybeans and cotton throughout the U.S. However, this cultural practice has not been widely adopted for vegetable or fruit crops, particularly in West Virginia. With no-till production, a winter cover crop is established in the fall and provides soil protection during the winter months. The following spring, the cover crop is killed by either rolling, herbicide application or mowing. The cash crop is established into the existing mulch by either direct seeding or transplanting. Additional benefits of cover crops include weed control, nutrient retention, and field access during wet weather. The cover crops also increase soil health by reducing compaction and increasing organic matter.

Legume cover crops such as clovers and vetch can fix nitrogen from the atmosphere and make it available for crop growth, thus limiting the use of synthetic fertilizers. No-till production has not been adopted by any commercial pumpkin grower in West Virginia prior to the initiation of this project. Moreover, there have been no demonstration or research projects related to no-till vegetable or fruit crop production.

The purpose of this project was to demonstrate the use of no-till for commercial production of pumpkins in West Virginia.

Section II

Pumpkins and other cucurbits are an excellent crop choice to show the effects of no-till crop production. Cover crops and organic mulches tend to keep the soil temperatures cool. Thus, crops which are planted later in the spring or summer respond favorably to a lower soil temperature.

For this project we chose a representative cereal grain and legume cover crop species. Rye (*Secale cereale*) grows well during the fall and winter and provides a significant amount of biomass for no-till production. Legumes such as hairy vetch (*Vicia* sp.) and crimson clover (*Trifolium incarnatum*) can fix as much as 100 lbs. of nitrogen/acre. Combining the two species creates an optimal cover crop mix which provides nutrients and biomass residue.

Beginning in 2009, cover crops were established at the USDA Plant Materials Center in Alderson, WV and the Eastern Panhandle region near Martinsburg, WV (2010-11). Rye, Vetch, Crimson Clover, Rye+Vetch and Rye + Crimson Clover were seeded in early October of each year of the project. Phosphorus and potassium were applied at establishment based on a routine soil test. The following spring of each year (mid-May) the cover crops were rolled and mechanically killed using a roller-crimper. The roller-

crimper is mounted on a tractor and mechanically kills the cover crop without chopping or mowing the residue. Since this is an important stage in no-till production, we hosted two field days in 2010 and 2011 showing how the roller-crimper worked. Mechanically killing the cover crop prevents the need for a herbicide. Also, since the residue is not chopped, it decays slower. Digital images of each stage of the no-till production process were taken and used to create PowerPoint presentations, handouts and fact sheets. In mid-June, pumpkins were direct seeded in the mulch residue. 'Gladiator' pumpkin, a powdery mildew tolerant cultivar as well as other hybrid cultivars were planted each year of the study. No supplemental irrigation was provided. A visual assessment of weed control was made and digital images taken. In 2010, no-till was compared with strip tillage and conventional tillage. A five foot wide strip was tilled and the rye cover crop was left undisturbed between the tilled strips.

Pumpkins were harvested in mid-October of each year of the project and separated into marketable and unmarketable fruit. A field day was conducted showing growers and extension agents the enhanced quality and yield of pumpkins grown in a no-till system versus conventional.

Section III

The goal of this project is to **evaluate and demonstrate a new production method for growing pumpkins in West Virginia**. We hypothesize the following:

1. *No-till production of pumpkins using a rye+vetch (rye+crimson clover) cover crop in West Virginia will significantly reduce weed emergence.*
2. *No-till production of pumpkins using a rye+vetch cover (rye+crimson clover) crop will improve access to the field during wet weather and reduce fruit rots and other diseases which can lower yield and quality of pumpkins.*
3. *No-till production of pumpkins will be a viable option for West Virginia growers.*

Section IV Goal: Evaluating No-till Pumpkin Production:

Grass/legume mixtures are often used for conservation tillage. The grass provides biomass and the legume fixes nitrogen for the subsequent crop. Rye (*Secale cereale*) and hairy vetch (*Vicia* sp.) were drilled in a 150 ft. x 150 ft. plot at the USDA Plant Materials Center near Alderson, WV on September 10, 2009 and 2010 and Martinsburg, WV (Figure 1). The soil at this site was a sandy loam with a pH of 6.0. The seeding rate for cereal rye was 90 lbs./acre and hairy vetch was seeded 20 lbs./acre rate. In 2010, crimson clover was added to the evaluation. After seeding, a deer fence was placed around the plots to prevent browsing by wildlife in the fall and winter.



Figure 1. Rye/hairy vetch and rye/crimson clover cover crops were established in September at the USDA Plant Materials Center near Alderson, WV.

The following spring, the rye and vetch were either rolled with a 6 ft. roller-crimper unit mounted on the front of a tractor or mowed with a bush hog rotary mower and strip tilled with a 5 ft tiller (Figs. 2, 3, 4).



Figure 2. A tractor-mounted, roller-crimper was used to mechanically kill the cover crop and prepare the site for seeding.



Figure 3. The rye+hairy vetch and crimson clover were rolled in late May 2010 and 2011, approximately 3 weeks before seeding pumpkins.



Figure 4. The strip-tilled plots were mowed with a rotary mower and tilled with a rear-mounted tiller at the time of planting.

There was some survival of the hairy vetch in the rolled plots that required an additional application of *Glyphosate* herbicide prior to seeding (Figure 5)



Figure 5. Survival of hairy vetch after rolling.

Conventional tillage was evaluated by tilling a plot adjacent to the cover crop block. This plot had no cover crop established on it the previous year. On June 15, 2010, pumpkins (cv. ‘Gladiator’) were hand-seeded into the plots. Two seeds were sown per hill. A bulb planter was used on the no-till block to make a planting hole approximately 1.5” deep. In 2011, transplant versus direct seeding within no till was evaluated. Within the strip tillage and conventional tillage plots, the pumpkins were hand-seeded by making a planting hole with a hoe. The pumpkins were spaced 4 feet between plants within the row and 8 feet between rows (Figure 6). Each tillage method had 4 rows (150 ft long) with four replications per tillage method. No fertilizer was applied at planting. At thinning, nitrogen applied as 42-0-0 was side-dressed to the plots at the rate of 50 lbs./acre, which is 50% of the recommended nitrogen rate for conventional tillage pumpkins.



Figure 6. The pumpkins were thinned to the most vigorous plant/hill.

After thinning, no weeding or irrigation was performed. No pesticides were applied. The 2010 growing season was above average for temperature and below average for rainfall. On October 25, the pumpkins were harvested. For each tillage method, green and orange pumpkins were counted and weighed. Data were analyzed using Costat statistical software.

Section V

The pumpkins growing in the no till system seemed to exhibit a slower growth rate during the first 1/3 of the growing season relative to the strip and conventional tillage pumpkins. However, these pumpkins did seem to compensate and catch up to growth observed with the other tillage methods. Weed growth was significantly reduced by the no till system (Figure 1). However, as mentioned previously, the hairy vetch which survived the rolling-crimping process had to be desiccated with an herbicide prior to planting. With strip tillage, the weeds did emerge, but fewer weeds were observed in the tilled area and more in the interrow space where the mulch had been chopped and moved by the rotary mower. Perhaps the effectiveness of the mulch is reduced by chopping relative to rolling. Conventional tilled plots had significant weed competition.



Figure 1. Weed growth in no till versus strip till pumpkin plots.

Strip till pumpkins had a significantly larger fruit set relative to no-till pumpkins (Table 1). However, the average fruit weight was significantly greater with no tillage resulting in a larger tonnage harvested per acre with fewer pumpkins. Whether by weight or fruit count, conservation tillage increased marketable yields by more than 50% relative to conventional tillage pumpkins. Pumpkins produced using the no till system were clean and ready to market (Figure 2). The strip tillage pumpkins were slightly dirtier and may require washing before marketing.

In 2009, a variety trial which included ‘Gladiator’ in a conventional tillage system, used recommended fertilizer rates (100 lbs. N /acre) and pesticides (Jett, 2009). Yields from this evaluation were 1815 pumpkins per acre, 17 t/acre with an average weight of 19 lbs./pumpkin which are very equal to no-till yields received in 2010 under more stressful growing conditions and fewer inputs.

Transplanting was superior to direct seeding in a no-till production system. Seed were often eaten by rodents and required reseeded. Transplants produced earlier, higher yields relative to direct seeded pumpkins.

Further evaluation of conservation tillage must be conducted. Growers and extension personnel must be introduced to the system components. In 2010, a Cover Crop Field Day was conducted which demonstrated the rolling process (Figure 3). Hairy vetch was difficult to mechanically kill with the roller-crimper. If hairy vetch is used as a legume cover crop, it must be killed with an application of contact herbicide. Replacing the hairy vetch legume with a shorter stature plant that is completely killed by rolling (crimson clover) improved the mechanical kill process significantly. We recommend replacing hairy vetch with crimson clover.



Figure 2. No-till pumpkins were clean with excellent size and quality.

Table 1. Marketable yield of pumpkins grown in conservation versus conventional tillage.

Tillage method	Avg. wt./pumpkin (lbs.)	Yield/acre (tons)	No./plant	No./acre
Conventional	12.0	7.7	0.9	1266
Strip Tillage	16.8	19.8	1.7	2363
No Tillage	21.3	18.9	1.3	1777
LSD _(0.05) ¹	3.7	2.6	0.7	498

¹Means which differ by more than the LSD value are significantly different at P = 0.05.



Figure 3. A *Cover Crop Workshop* held in May, 2010 and 2011 discussed cover crop choices and demonstrated the rolling/crimping process.

The project has had significant short and long term impact. Two of the largest commercial pumpkin growers in West Virginia have switched to growing pumpkins no-till with an additional pumpkin grower adopting this production system for the 2012 season. The Project Director, Dr. Lewis Jett continues to use the results from this project to encourage vegetable producers to adopt conservation tillage practices. In 2012, a Conservation Innovation Grant was written to fund evaluation of no-till vegetable production within high tunnels.

Section VI

The long term goal of this project was to demonstrate the effects of growing pumpkins no-till and have this practice adopted by commercial pumpkin growers in West Virginia. Each year of the project demonstrated the benefits of no-till production. Growers attending field days, grower meetings, and one-on one discussions have been exposed to this new technology. A PowerPoint presentation describing no-till pumpkin production was created and is being distributed to WVU County Agriculture Agents for further education programs to new and existing produce growers. In 2012 two commercial pumpkin growers have adopted this technology. I am optimistic that no-till pumpkin production will continue to expand across West Virginia as a long term outcome from this project.

Measurable Outcomes:

- 1) Three large acreage pumpkin growers in WV have adopted no-till pumpkin production.
- 2) Three field days demonstrated the roller-crimper.
- 3) One no-till pumpkin CD distributed to WVU extension personnel for further educational training.
- 4) One no till pumpkin fact sheet.
- 5) Three articles related to no-till pumpkin production

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1. What was the issue, problem, interest of need for your project?

The interest of need for this project is that sustainably produced organic vegetable seedlings available to purchase are currently in very limited supply and are typically produced outside of our area. The unavailability of organic seedlings is frustrating to environmentally conscious home gardeners and also presents a challenge to small farms seeking to transition to an organic system. The primary limiting factor in producing organic seedlings is the unavailability of suitable seed starting media. Commercially produced potting mix that is approved by the NOP is cost prohibitive to purchase in the volume needed by a small farm. It is also not reliably available at the local level for a small farm or home gardeners.

Through this project, a business model can be established so that a certified organic farm would be able to produce a sufficient quantity of seed starting media to offer organic vegetable seedlings to West Virginia buyers and potentially to other small farms in the area. This enterprise can be operated as a single business for total farm income or can lengthen the "earning season" for a small farm.

2. How did you approach each of the issues or problems described in question 1?

The first step in approaching the issues above was to develop a method for producing a sufficient volume of seed starting media. Prior to receiving this grant, I had been experimenting with this problem by using a BBQ grill to pasteurize soil and compost. With the grill I could pasteurize enough soil to fill one planting tray about every 40 minutes. Grant funds were used to purchase a meat smoker, trays and other supplies used to pasteurize soil, as well as peat moss and other seed starting media ingredients. The smoker allowed me to pasteurize 3 times the volume of soil in the same amount of time. The seed starting media ingredients were then mixed in differing ratios until a suitable soil had been developed. The idea behind the seed starting media was that it could be used as a base mix that has a good weight, allows air flow and retains moisture without waterlogging. The base soil mix needed to be suitable to sustain a variety of standard garden vegetable seedlings long enough to get them to transplant size. For specialty plants, the base soil can be customized through the addition of lime, wood ash and other amendments.

In the process of developing the soil mix, I experimented with several purchased ingredients including peat moss, perlite, and rice hulls. Ultimately, considering availability and performance, the base mix was developed using garden soil, compost and peat moss as the primary ingredients. If the farmer produces their own compost the soil can be produced using only one purchased ingredient. I also ran a few experiments with the addition of amendments such as lime, wood

ash, and greensand. However, I found that the texture of the soil as determined by the ratio of the three main ingredients had a more noticeable impact on seedling performance for the relatively short time that they are in the transplant pots.

The next step was to use the soil to produce healthy plants. This phase was done simultaneously with developing the ratios of the soil media ingredients because observed plant vigor was often used to measure the suitability of the soil mix. Because the project also has a focus on sustainability, fiber pots were selected as the growing containers. Grant funds were used to purchase a variety of sizes and shapes of fiber pots, reusable plastic trays, and a large variety of organic seed. I discovered that seedlings grown in sustainable fiber pots require different management than those grown in traditional plastic cells. The dimensions of the fiber pots made a big difference in the success of the seedlings. It took several trials to find what worked the best. The style of tray (mesh bottoms and sides versus solid bottoms and sides) that the fiber pots were held in also contributed to the success of the seedlings. Once again, it took several trials to find what worked the best. I frequently grew trial batches of the same seed in fiber pots and traditional plastic cells for comparison.

Once seedlings had been produced, I took them to various local markets including the Capitol market in Charleston, West Virginia to gauge public interest in the product. Grant funds were used to purchase folding tables and stall rental fees.

3. and 4. What were the goals for the project? Compare to actual accomplishments.

Project would act as a feasibility study to meet a regional demand for sustainably produced, organic vegetable seedlings for which there has been a very limited supply.

- Soil pasteurization was achieved in a volume that meets the needs of a small farm using affordable equipment that is available in most hardware stores.
- A base seed starting soil mix was developed using only one ingredient that is not produced on-farm and must be purchased. This base mix is good for a variety of common vegetable starts but, can be customized by the addition of soil amendments required by specific plants.
- Optimal fiber pot dimensions and tray styles were determined that produce plants that will appeal to customers.
- Since 2010 and continuing, The Potager has made available a wide variety of vegetable and herb seedlings at various venues including The Capitol Market in Charleston, WV, The Putnam Farmers Market in Hurricane, WV, The Dogwood Festival in Huntington, WV, and others as opportunities arise.
- The seedlings are sought out by repeat customers that want to start out with organically produced vegetable plants.

Project will provide new revenue stream for small family-farm at a point in the growing season that had not previously been an “earning time”.

- This project has shown that a small family-farm that has previously offered only produce can be ready to go to market with product (seedlings) approximately five to six weeks earlier in the season.

Make certified organic seedlings available to other West Virginia small farms seeking organic certification.

- This is a long-term goal for the project that is still in the process of being realized. Specific details of the progress made and grant activities are discussed in Question 7 of this report.

Boost awareness for the need of increased sustainability of West Virginia farms.

- The Potager has noticed repeat customers specifically seeking organic and sustainably grown seedlings.
- Public interest in organic and sustainable products is steadily increasing as evidenced by the number speaking engagements in which I have been invited to participate since the project began.
 - Project was included in panel discussion with other farmers at the Tri-State Food and Farm Conference.
 - Project was included in a presentation given to the Putnam County Master Gardeners program.
 - Project was included in presentation given as part of the “Science Café” lecture series open to the public and sponsored by the Clay Center in Charleston, WV.
 - Project was included in a presentation given at Forren Soil as part of a workshop series open to the public.

Establish a tested business model to be shared with other small producers.

- I consider the testing of phase of the basic business model to be a success. There were many lessons learned and information gathered that can be passed along so that each farmer does not have to learn these things “the hard way.” However, I have also learned that there are some adjustments that each farmer will have to make to adapt the model to meet his/her situation. This topic is discussed in greater detail in Question 5 of this report.
- This is a long-term goal for the project that is still in the process of being realized. Specific details of the progress made and grant activities are discussed in Question 7 of this report.

5. Describe specific results, conclusions, lessons learned, success stories, and testimonials or other documentation.

The learning curve for growing the seedlings was much steeper than I would have expected. The first step was to produce a suitable growing media. There is a lot of information on the internet however; most of it involves using several purchased ingredients and often products that are not approved for organic use. It took numerous trials over the project period to produce a weed and disease free media with good moisture retention using only one purchased ingredient (peat moss).

Seedling losses the first year were very high. (A seedling loss refers to a plant that could not be taken to market because it had either died or, most often, was not appealing to the eye). Through numerous trials, each variable in the preparation and growing method was adjusted to account for problems as their cause was determined.

I am now able to consistently produce healthy seedlings with significantly fewer losses than at the start of the project.

Some other specific challenges and lessons learned include the following:

- Some of the challenges with growing these organic seedlings included the timing between planting and marketing a wide variety of vegetables, monitoring and controlling soil fertility, and selecting varieties that appeal to gardeners. I feel as though I am still on the learning curve and will continue to make adjustments based on what I learn each season.
- I was surprised at how quickly this project depleted my saved seed stock. I am now saving a larger volume of seed to account for this.
- I discovered that seedlings grown in sustainable fiber pots grow very differently and require different management than those grown in traditional plastic cells. The dimensions of the fiber pots made a big difference in the success of the seedlings. It took several trials to find what worked the best.
- The style of tray (mesh bottoms and sides verses solid bottoms and sides) that the fiber pots were held in also contributed to the success of the seedlings. Once again, it took several trials to find what worked the best.
- Another challenge related to timing and soil fertility, was public perception or growing “picture perfect” plants. To avoid waste, any plants that did not look perfect enough for market were simply planted in my own field where they generally recovered nicely. Complete failures were composted and the compost will eventually be used in the potting soil for next year’s seedlings.

**6. What were the long term outcome measures for the project?
Describe progress being made toward obtaining these outcomes.
Did the grant activities contribute toward achieving these goals?**

As part of my own business, I continue to expand what this project has established. In the area of sustainably grown organic seedlings, I am not meeting the demand by home gardeners in my region and am not aware of any other supply in the Charleston/Huntington and surrounding area in West Virginia. Gaining this knowledge base was a direct result of grant activities as well as the funding provided. While I would have liked to have made greater strides toward the long-term goals of the project, sharing information and methods that had not been tested would have meant more losses by more farmers.

Results of this project have been shared with over 175+ people and/or small-producers at various venues including: a discussion panel held at the Tri-State Food & Farm Conference, presentations given at the Putnam County Master Gardener Program meetings, Forren Soil Landscape Service, as well as lectures given at the Charleston Clay Center for the Arts and Sciences. In addition, I have worked closely with a farm that is in transition to organic production.

As mentioned previously, long term goals of the project are to establish a business model to share with other small, organic family-farms; and to make certified organic seedlings available to other West Virginia small farms seeking organic certification. Because the learning curve has been steeper than anticipated, I feel that I am just now to the point where I have attained enough knowledge to be able to do so. I am currently working closely with the Natural Resource Conservation Service (NRCS) in the area of organic transition. In this capacity I work one-on-one to transition farms in West Virginia to an Organic System Plan. I anticipate that opportunities to realize this goal of the project will arise as a result of my work with the NRCS.

Additionally, no other farms in West Virginia have applied for Organic Certification during the time period of the grant. However, since the NRCS is assisting farmers in the area of organic transition, several potential opportunities may arise over the next couple seasons.

Finally, there are several farmers in my area that I am aware of who are in the process of building high-tunnels and are new to growing in high-tunnels. Since my seedling project was conducted in a high-tunnel, these farmers would be ideal candidates with whom to share the seedling business model.

Other future project plans include the following:

- I plan to develop a short “handbook” for producing sustainable, organic seedlings in significant quantity. The handbook will be in the form of a PDF that can be printed into a handout and will include the methods that have been developed from the grant activities.
- I plan to continue to make adjustments as I learn what techniques are most successful through personal experience. I am pleased with the soil preparation method as described in the original grant proposal and may eventually need to expand that operation.
- I also plan to eventually have a second fall seedling season and offer plants that will encourage home gardeners to plant more fall vegetable gardens. I had planned this for the 2011 fall season but, was unable to do so due to wind damage to my high tunnel.

- I would like provide seedlings to other small organic farms or farms in transition. I have been working with the NRCS in the area of organic farming and am looking for opportunities to do so.
- I would like to work with a value added product producer to do a specialty grow out of their main ingredient (such as grow the peppers for someone who is producing pepper jelly). If this can allow the final product to have the Organic label it would increase the value of the final product.

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PROJECT PHOTOS



2010 Early organic seedling production



The Potager at the Dogwood Festival, Huntington, WV



The Potager at The Capitol Market in Charleston, WV



Close-up of Signage showing recognition of grant

“Developing a System to Conserve Water for High Tunnel Specialty Crop Production:

Jett Farm

\$1,179.00

Section I.

High tunnels are passively vented, solar heated greenhouses which are becoming very popular across West Virginia as a method to grow food year-round. Over 100 high tunnels have been constructed in the period 2008-2011 in West Virginia. In addition to heating the air and soil for faster crop growth, high tunnels also shelter plants from heavy rainfall, wind and other weather extremes. High tunnels are usually constructed over existing soil on a farm. Thus, high tunnels modify natural resources such as wind, sun and soil to produce a modified environment for crop production throughout the year.

Water is the only external input or resource for high tunnel crop production. Excluding rainfall is often an advantage of high tunnel crop production since many diseases are exacerbated by free water. However, crops within the high tunnel are totally dependent on the farmer for water, and irrigation management is important. Water for irrigation can be limiting for many high tunnel crop producers. Surface water is not always a reliable source of quality water and municipal water is expensive. As more high tunnels are being constructed in marginal areas such as city lots, water usage is an important factor for consideration.

A commercial size high tunnel (30 ft. wide x 100 ft long) can displace as much as 1800 gallons of water during a one inch rain event. When filled with crops during peak demand, a single high tunnel may require as much as 1000 gallons of water per week. If high tunnels were more self-sufficient for water usage, they would be even more profitable structures for farmers.

The objective of this research project was to investigate a water catchment system for high tunnel crop production. Essentially, I wanted to “close the input loop” for high tunnels. Using rain gutters mounted to the high tunnel and an above-ground tank for water impoundment or harvest, we hypothesize that given an average seasonal rainfall, enough rainwater can be harvested to serve as a secondary water source for irrigation of high tunnel crops.

Section II

In 2009, a commercial high tunnel at Jett Farms near Lost Creek was chosen as a site to evaluate rainwater harvest. The high tunnel is a Rimol Nor'easter and is 30 ft. long x 14 ft. high x 96 ft. long. The high tunnel has been used to grow small fruit crops since 2007. Approximately 6 rows of strawberries (1500 plants) are grown within the high tunnel each year. The crop is established in September and harvested from April-June of the following year. This is an annual crop and is replaced each year. Each row of strawberries has two drip irrigation lines. The drip irrigation tape is medium-flow drip tape and discharges about 0.5 gal of water/100 ft of row length. The water supply for this high tunnel has been either municipal or well water.

The site for the project is in Northcentral West Virginia which receives approximately 42-48 inches of rainfall each year. The rainfall is relatively evenly distributed. Small fruits such as strawberries are well-suited for high tunnels since rain can damage the fruit. However, like most fruit crops there is a high demand for water during fruit production. Strawberry fruits is over 90% water so fruit weight is a function of water usage. As much as 1.5 inches of water are needed per week to obtain optimal marketable yields of strawberries.

In 2009 vinyl rain gutters were attached to one side of the commercial high tunnel. Each rain gutter is a 10 foot segment and was attached with screws to the 2"x8" hip-board of the high tunnel. The hip-board is the area of the high tunnel where the roll-up sides are attached. This is a perfect site on the high tunnel to attach the gutters since the hip-board is approximately 72 inches from the ground and provides enough height to channel the water runoff into an aboveground storage tank at one end of the high tunnel. The rain gutters are connected so there is a slight slope down the length of the high tunnel to the storage tank. The space between the gutters and the high tunnel is sealed over with polypatch tape. This provides an even seal between the gutter and the polyethylene roof plastic so that rainwater runoff flows without leaking into the storage tank. The storage tank was a 550 gallon polyethylene tank. The tank had a screen at the inlet to prevent foreign matter such as pollen, insects, etc. from entering the tank. Given a one inch rain event, the tank had enough volume to store rainwater from one half of the high tunnel structure. A 4 HP (2 in. head) Honda pump was purchased to pump the harvested rainwater back into the main lines which feed each drip irrigation lines in the high tunnel. A screen filter was used on the mainline. Irrigation for strawberries was conducted from March-June (growth and harvest) and again in September-November (establishment) of each year.

Irrigation was scheduled by using a tensiometer. A tensiometer is a water-filled plexiglass tube with a ceramic tip. The tensiometer is placed at rooting depth (6-8 inches). As water is lost by evaporation and transpiration, the gauge on the tensiometer registers the level of soil moisture loss. For strawberries, irrigation was initiated when the tensiometer was greater than -40cb.

The harvested rainwater was used as a backup or secondary water source. In other words, municipal or surface water sources were considered the primary

water source but whenever enough rainwater was collected, the irrigation cycle used harvested rainwater.

Section III.

The goal of this project was to demonstrate the ability of high tunnels to be more efficient in water use by harvesting rain water runoff from the high tunnel structure.

Section IV.

Closing the input loop for high tunnels will make high tunnel crop production more sustainable. Rather than channel water from the structure as wasted runoff, this project attempted to quantify the use of harvested rainwater for high tunnel crop production.

My ideas for this project were shared with another high tunnel crop producer in Fayette County West Virginia. Together, the two sites were merged as part of a larger high tunnel rainwater project. I collaborated with the grower setting up the catchment system for his high tunnel. The Fayette County grower relied on funding from USDA-NRCS to set-up a rainwater catchment system. The site in Fayette County receives more rainfall and was used as a site replication. The Fayette County site also practiced mixed cropping and wanted to use high tunnel water as a primary water source instead of a secondary water source for the Lost Creek high tunnel,

From 2009-2011, rainwater harvest from the high tunnel was conducted. The lowest precipitation months in West Virginia are July-October when most high tunnels are idle. Capturing rainfall early and late in the growing season proved to be very efficient and synchronized well with strawberry water usage in a high tunnel. The Fayette County producer was able to use harvested rainwater as his primary water source.

The modest measurable outcome of this project was to show that impounded high tunnel water can cut irrigation use from offsite water. Most high tunnel crops are irrigated three times per week. Replacing one out of three cycles with harvested rainwater was ultimately accomplished. Numerous one-on-one discussions have been conducted with growers at the high tunnel and other meetings about this system. Approximately 3 other high tunnel growers have adopted the high tunnel water harvest system in 2012. Sharing of results with extension and professional horticulturist will result in wide-spread, long term impacts.

Section V.

Water quality was assessed by submitting water samples to a water testing laboratory. The rainwater had no bacterial, ion or alkalinity contamination and was suitable for irrigation.

Rainfall over the course of the project was fairly evenly distributed. This provided the opportunity to harvest a uniform volume each week. Tensiometers are very useful tools for scheduling irrigation within a high tunnel. By using tensiometers, growers can avoid over or underwatering the crop. Each irrigation cycle was 3 hours x 3 cycles per week.

Each high tunnel had a roof surface area of $\approx 2100\text{-}2900\text{ ft}^2$. One inch of rainfall provided catchment collected from one side of the high tunnel of approximately 600 gallons of rainwater. This was sufficient to water the strawberry crops at least once to twice per week. Thus, meeting the goal of providing a minimum of 33% of the water requirements through rainwater capture is feasible (Figure 1). With a larger storage system, it would be possible to provide enough water to irrigate exclusively from rainwater capture. Material costs for a water catchment system for a high tunnel can be approximately \$2800.

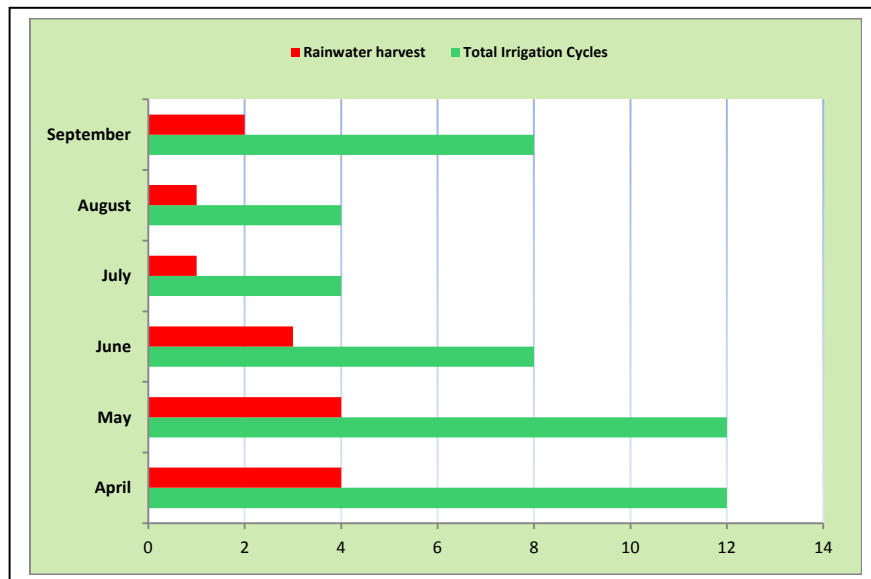


Figure 1. Rainwater catchment supplemented approximately 30% of the water input required for production of early-season strawberries.

Section VI.

The long term outcomes of the grant are to encourage adoption of high tunnel rainwater capture. Approximately 350 people or grower-clients were presented the information on water conservation for high tunnel production.

One of the strongest appeals of a high tunnel is how efficiently high tunnels use natural resources. This project has successfully demonstrated that rainwater capture from a high tunnel can be an efficient way to irrigate crops. Also, the project has demonstrated how important irrigation management is within a high tunnel. My experience with growers is that they tend to underwater crops within the high tunnel. By paying closer attention to water usage, they will apply water more efficiently within a high tunnel.

As more high tunnels are constructed on marginal land such as city lots in urban areas, water inputs become even more challenging. Presenting results from this project at the Mid-Atlantic Vegetable and Fruit Conference in 2012 resulted in feedback from many urban farms who wish to adopt this system for their high tunnels. The May issue of the *American Vegetable Grower* will feature outputs from this project. In addition, I had an opportunity to present a poster featuring this project at the International Society for Horticulture Science Congress on high tunnels in State College, PA in 2011. This project created a very interesting discussion among high tunnel researchers across the U.S. and Europe.

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"Increasing Production and Awareness of Wine Grapes and Wineries in West Virginia"

Lambert's Vintage Wines

\$4,000.00

Summary

The issued was the inability to restrict deer from entering the vineyard. Without a mesh fence, the deer were able to go under, over or through all other traditional fencing methods including six strands of electric and barb wire fencing. All wineries in West Virginia were facing significant losses from deer damage and alternative methods for deer fencing needed to be examined in order for production to increase and awareness of product availability to be exploited.

Approach/Activities

The existing fence was disposed of due to its health threat to the visiting public and patchwork nature as the vineyard attempted to solve the problem. Once the fence was assembled, the vineyard was open to the public for others to observe its effectiveness. In addition to serving as a model for others, the fence provided a significant increase in production and product for the visiting public to observe.

Results, Conclusions

The fence installation provided necessary protection for the development of expanding wine varietal offerings:

- ❖ Fredonia (climate hardy vine resistant to cold); recommended by WV University Extension agent and studies from another state winery; excellent blend variety for 3 other wines
- ❖ Concord; again, climate acclimated and good blend
- ❖ New varieties allowed the winery to fulfill the WV Farm Winery growing requirements.

The winery documented a \$6,000.00 savings in crop salvage from the previous growing season due the reduced crop loss from deer penetration. The owner of the winery served as the host site for the West Virginia wineries group where a program concerning the grant activities including varietal introduction and intensive tour of the new fencing system was presented.

Two thousand new grape vines have been planted and to date, no losses from deer have been noted.

Long Term Outcomes

Based on discussions at the winery tour (May, 2011) by other West Virginia winery operators, up to 50% savings to the wineries who do the fencing model in the form of losses would result for implementation of this system. This would allow additional varietals to grow and evaluated for their appropriateness and expansion of wine selections in the state.

Funding Expended to Date

All grant funds have been expended.

Contact

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"Gilmer County Farmers' Market"

Gilmore County Economic Development Authority

\$1,900.00

Summary

We wanted to increase vendor sales and product availability through added amenities and signage at the market.

Honey bees have been dying in the last few years, and it has become imperative to the industry and to the sustainability of honey bees themselves that more people become involved in the production and bringing in youth involvement. Therefore, our entrepreneurship youth program which was started April 2011 has proven to be very successful in the creation of 6 new hives in our county.

Activities/Approaches

We purchased "green" shopping bags to encourage consumer use of along with advertising our Farmers Market name on said bags. We purchased hanging scales for vendor use to give them added selling amenities and weigh their specialty crops.

The scales have been very convenient and economical for the vendors use and the signage has made more people aware of our location and times of business. The senior citizen voucher program seemed to be a great assistance to many of our county senior citizens who used their vouchers quite frequently. This senior program will begin again next July. Several vendors have voiced interest in participating in the training to be able to accept the senior vouchers next year.

The Gilmer County Economic Development Association and the Gilmer County Farmers Market has been very active in sustainability and recycling; therefore, it was decided to purchase reusable shopping bags as a way to promote the market along with the promotion of sustainability. These "green" bags have become a recognizable logo for the farmers market which gives our local producers a "leg up" on the larger grocery businesses per our "buy local buy fresh" incentive.

The Gilmer County Economic Development Association expended \$877.51 of their own money to help support the promotion of the farmers market.

To date, we have distributed approximately 250 of the initial 350 bags.

Results

Our goal was to increase the amount of vendors by 10% over last year which we far surpassed with a total of 41 vendors throughout the market season which is more than a 50% increase. Vendor sales also increased by more than 50% with approximate sales exceeding \$24,000.00.

We built onto our existing shelter which added vendor space and provided a setup table for the 41 vendors we had throughout the market season. We used marketing items through the Gilmer County Farmers Market shopping bags to increase awareness of our market throughout the tri-county area. This advertising seemed to help increase the total market sales by more than 50% from last year. The hanging scales also help farmers increase their sales due to having an alternate way to price.

Lessons Learned

We have witnessed a great growth in both market shoppers and local farmer vendors with an increase in sales of over \$24,000.00 for the market season. Many of our vendors have expressed much gratitude in having an outlet for selling their produce. The consumers are happy to have the opportunity of being able to “buy local buy fresh”.

Long Term Outcomes

Every vendor throughout the market season was required to turn their total sales for each week into the market manager. The market manager kept a weekly journal and calculated at the end of the season, total market sales.

We have given the WV Department of Agriculture a Gilmer County Farmers’ Market shopping bag featuring a specialty crop (vegetable) graphic.

Contact

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"Hometown Market Project"

The Hometown Marketers

\$3,000.00

Summary

Our project was to establish a Farmer's Market for our town, because there was only one grocery store and we had a very limited selection of fresh produce.

Activities/Approaches

We were successful in starting and running a weekly farm market, open every Saturday from May 1st thru October 15th. Over 50 people came to our market, many came every week. We also constructed a demonstration garden to show how, with innovative fencing and space saving techniques, anyone could garden in even a very limited space. This was done by using a pre-formed dog kennel fence panels, and grow boxes to plant in, we also used bags of garden soil to plant in. This idea was well received by our customers and some even thought the fencing would make a great play yard to protect their children and grandchildren. About 30 people walked through our garden and commented on it. On our first open day of market, we gave out 25 free backyard garden project packages. We asked for a report at the end of the season and were really happy when nine people gave positive replies.

Results

We had three projects in our garden request:

- To build a shelter for our vendors to be protected from wind, rain and sun

- To provide a sturdy table, for our vendors to display and sell their produce

- To show how anyone can grown their own garden, even in a very small space, by constructing and demonstration garden

We were able to complete all three parts of our project, therefore, we will be providing an established Farmers' Market for years to come. We look forward to next season and hope to grow as people get used to us being there every week.

Lessons Learned

Our project was to provide a variety of fresh homegrown vegetables and fruits to the people of our town. We could not have completed our project without the monies provided through the SCBGP. We did not have the means to do this on our own, now we have a market location with sturdy tables made of treated wood to last for years. A deer proof garden space, to use for years to come, and thanks to the funds provided. Thank you.

Contacts:

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"Promotion and Publicity for the Spencer Farmers' Market"
Tri-County Partnership (Spencer Farmers' Market)
\$1,980.00

Issue, Problem, Interest or Need

In order to enhance the profitability and sales of specialty crops, funding was needed for newspaper, radio, and live remote radio advertising to promote and publicize the Spencer Farmers' Market. We also needed to have a large activity such as a customer appreciation day and a kid's day to increase attendance and sales at the market. For the market to remain successful, we needed to increase the number of vendors and customers.

How issue or problem was addressed via the project

We bought printed ads in the local newspaper weekly during the time that the farmers' market was open, held 2 customer appreciation days, and a kid's day at the market to increase attendance and market sales. We held a live remote radio broadcast, developed and printed a farmers' market cookbook, developed an exhibit with the advantages of buying local and displayed this at public events as well as at the market. We also solicited farmers and 4-H and FFA youth to participate as vendors in the market.

Achieved Goals

- Goal 1. Increase the overall number of vendors at the Spencer Farmers' Market.
- Goal 2. Increase the number of regular vendors who participate in the market each time the market is open.

In 2009 and 2010, a letter was sent to existing vendors and potential vendors to attend a planning meeting for the Spencer Farmers' Market. Also articles were placed in the local newspaper seeking vendors and informing them of the meeting dates. The meetings were held April 29, 2009 and March 17, 2010. The rules and vendor application were updated. We also talked with the FFA advisors and the 4-H to encourage these groups to become vendors at the market.

All the goals except for one were accomplished during the term of the grant. The measurable goals under these goals were:

- Increase the number of vendors at the market – the number of vendors increased from 14 in 2008 to 19 in 2009 and to 24 in 2010. This was a 75% increase in two years.
- Increase the number of vendors who set up regularly at the market – the number of vendors who set up regularly at the market increased from 4-6 in 2009 to 8-12 in 2010, which meant the number of vendors doubled.

From 2005 through 2008, the Spencer Farmers' Market struggled to have enough vendors to provide a good selection of produce and other items. In 2008, there were 14 overall vendors and 3-4 that set up each week at

the market. Through the use of the specialty crop funds, we were able to encourage more vendors to set up regularly at the market and in 2010 we had 24 overall vendors and 8-12 that set up each week.

Goal 3. Increase the number of customers who regularly shop at the market.

Goal 4. Increase the total sales for the market.

Each week ads were developed and printed in the weekly newspaper concerning the Spencer Farmers' Market. The ads told the name, location, hours of operation, and the items that would be featured at the market each week. In addition to using the newspaper to advertise, the Extension agent used the local radio station to give a weekly market report listing all the items that would be at the market that week. The market opened on April 30 and closed on October 9, 2010.

The market was open a total of 54 times throughout the growing season over a 24 week period. A total of 22 ads appeared in the local newspaper and 24 market reports aired on the local radio station.

Measurable goals under goals 3 and 4:

- Increase the number of customers- Although it is hard to determine the number of customers, vendors think the number of customers has increased 40% in the past two years from 250 to 350 customers.
- Increase the market sales by 5%- The sales did not increase in 2009 and actually they decreased from the previous year. However, there was a 64% increase from 2009 to 2010.
- Develop at least one spin off business- Although one was not related to specialty crops, two new spin off businesses were developed by vendors as a result of the farmers' market. Those business was a nursery business. Two vendors purchased or were granted high tunnels so as to lengthen the growing season so as to improve their production of vegetables so as to further improve the selection of specialty crops at the market in future years.

Goal 5. Offer a Customer Appreciation Day with a live remote radio show, refreshments, free cookbooks, and other bulletins.

Goal 6. Initiate a buy local campaign, explaining the advantages of buying locally grown produce.

A Customer Appreciation Day was held September 4, 2009 and again on September 3, 2010. A Kid's Day at the market was held on Saturday, September 4, 2010. A live remote radio broadcast was part of the celebration in 2009. A list of facts about farmers' markets and local foods was developed by the Extension agent and these facts were discussed during the live broadcast. A Buy Local campaign was also featured as part of these special customer appreciation days. A three panel display was developed and used at the market along with a mini brochure describing some of the benefits of buying local produce. The display was also

featured at two other events, the Harvest Pot Luck community dinner in 2009 and at the Green Energy Fair in 2009.

Measurable goals for Goals 5 and 6:

- Develop two publications to highlight the advantages of buying local - We developed a pamphlet to go along with the display, were promoted in the Roane County tourism brochure, and developed a cookbook of local recipes.
- Add one new partner to the collaboration – Two new partners were added to the collaboration. The Green Energy Group developed a display about the advantages of buying locally and shopping at the farmers' market. They displayed the exhibit at the Energy Fair and at the Harvest Potluck and we used the display at the Spencer Farmers' Market. The Roane County Health Department was added as a partner in the collaboration and they trained the vendors in the guidelines for farmers' markets.

Results, Conclusions and Lessons Learned

Through the effective use of the radio and local newspaper and the development and displaying of the facts about farmers' markets, the word spread to various persons and entities throughout the county and surrounding areas. As a result of these efforts, the number of vendors doubled. It is estimated that the number of customers increased by 40% from 250 to 350.

Long Term Outcome Measures

The long term outcome measures were that we had a total of 24 persons register to be a vendor at the Spencer Farmers' Market. Through our advertising, we were able to bring more people to our market each week and we had many repeat customers. Because our vendors were making money and it was a great growing season, our market went from being open once a week to being open three times a week. The sales did not increase for 2009 and in fact, there was a decrease in sales. Although it was disappointing to see the sales decrease from 2008, there was a very good reason for this decrease. Because of health reasons, our largest vendor did not participate in the market in 2009. In the previous 3 years he primarily bought produce and resold it at the market thus he always had a large quantity and a great variety of produce. The other vendors were merely selling the extra produce they had grown in their home gardens and their sales were minimal compared to his. The sales for 2009 were \$3200.

In 2010, the vendors prepared better for what they would grow and sell at the market and more vendors participated as their sales were very similar. The sales for 2010 were \$5248 which was a 64% increase over 2009. The market also was moved at the end of the season to a more visible location in Spencer. The previous location was not on a main highway and was

actually on a one way street. The new location and the increase in the number of vendors will no doubt be beneficial to the survival of the market. All these achievements were as a direct result of having the specialty crop grant funds and being able to advertise so that we attracted a broad customer base.

Contact

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“Monroe Farm Market-Expanding Marketing and Distribution through an Existing Online Farmers Market”

Monroe Farm Market

\$2,000.00

Summary

Although the MFM had a website, it was not designed with shopping cart capabilities for processing orders/payments or for producers to update available products. Therefore, website development was needed to enhance producers' ability to sell specialty crops online. To increase customer numbers, targeted marketing and advertising was needed.

Activities/Approaches

The Monroe Farm Market (MFM) utilized funds from the Specialty Crops Grant to: (1) Expand the MFM website to accommodate individual producers entering their specialty crops offerings online each week and customers placing their orders through an online shopping cart, ultimately making the ordering process more simplistic. (2) Increase customers by marketing available specialty crop products and inviting participation in the online and local markets through targeted advertisements.

The goals for the project were:

- (1) Upgrade the Monroe Farm Market website to** accommodate individual customers entering their orders through a shopping cart system and to accommodate individual producers entering their specialty crop offerings.

The original plan was for MFM to develop their own shopping cart website. However, with the availability of already operational websites for ordering, the Market Manager, who was already hired through a contract, was paid to work extra hours to review established ordering websites and report her findings to the Executive Committee. The MFM Executive Committee carefully reviewed options for either developing their own website for ordering or contracting with an established website to provide this service. The decision was to contract with the Locallygrown.net website for order placement.

The Locallygrown.net Website option has been in operation since October 2009. This option allows producers to post the specialty crop products that are available and for customers to place their orders. In surveys of online customers, they are consistently pleased with the ordering process.

The Locallygrown.net Website option has been in operation since October 2009 and has resulted an over 300% increase in specialty

crops sales in 2010 with sales of \$29,637.28, which is increased from \$8,640 in specialty product sales in 2009. The target was a 60% increase in specialty product sales.

The Locally Grown Website makes collection of data related to the products each producer sells, each customer buys, and adapts well to aggregating data to identify products that are in higher demand. Producers can enter the website and receive reports of sales for their individual farms. Currently, the Market Manager has compiled reports related to specialty crop sales for 2010 that were shared with producers and used for 2011 planning at the MFM Annual Producer meeting set for January 21, 2011.

(2) Increase online customers from 75 to 150 by marketing available products and inviting participation in the online market through targeted local advertising (newspapers, radio announcements, flyers, etc.).

Marketing materials were purchased (flyers, magnets, banner, posters, and soaps with MFM information) and utilized in four marketing events in Charleston and placement of brochures in health oriented businesses (such as fitness centers, health agencies, etc.) in 2010. Signage was purchased and used for both local and online delivery sites.

Increasing customers by making them aware of the high quality specialty crop products available through MFM is vital for survival of the organization, as well as sustainability of family owned farms in Monroe County. The marketing materials obtained through the Specialty Crops Grant will greatly assist in “getting the word out” to customers.

As result of marketing efforts, MFM has 174 Online Customers, the number of producers has increased from 15 to 24, and Total Online Specialty Crops Sales from January 1 to December 31, 2010 was \$29,293.45, which is over 300% more than the same period in 2009 that was \$8,640 (the goal was a 60% increase).

The original goal of 150 customers was exceeded during 2010. As stated above, the online website makes compiling data about the number of customers enrolled in the online market easy to monitor. Our goal is now to increase the number of customers ordering weekly to 50+ and the total sales to \$3,500 weekly. Currently the range is between 25 and 48 and sales range from \$2500 to \$3,000 weekly. MFM retains 10% of the online total sales for maintaining the Market Manager position and operation of the market. 3% of this amount is paid to the Locallygrown.net Website.

Results

Goal 1. The Locallygrown.net Website option has been in operation since October 2009 and has resulted in over 300% increase in specialty crop sales in 2010. The target was a 60% increase in specialty crop sales. This was reached despite the loss of two high tunnels due to the heavy snow damage in the winter of 2010 that resulted in less specialty crops, such as lettuces and greens, being available early in the season. During 2010, producers received grant funding for 5 new high tunnels that will be in production during the 2011 season. 23 people out of 23 responses to a recent customer survey question of whether or not they would recommend the Monroe Farm Market Online to others said "Yes!"

Goal 2. As result of marketing efforts, MFM has 174 Online Customers, the number of producers has increased from 15 to 24. Sales at the local market increased by over 40% as result of placements of permanent signage and weekly placement of yard poster signs along roads entering Union to remind customers of availability of the market. At the end of the market season in October 2010, the total vendor sales for specialty products was \$10,930, which exceeds the 2009 specialty crop product sales of \$7,740 by 41%. The average number of customers rose from 60 in 2009 to 87 in 2010. The number of vendors grew from 5-7 in 2009 to 8-12. The goal for the local market was a 25% increase.

Long Term Outcomes

The long-term outcome for Monroe Farm Market is to develop the online market into a sustainable method of expanding the delivery area for locally grown specialty crop products due the limited population in Monroe County. At the local level, the goal is to grow the customer base and vendors at the local level so that small producers can sell their locally grown specialty products and sustain their family farms. Utilizing the website developed as result of the Specialty Crops Grant as well as obtaining professional marketing materials, has helped in the journey to become sustainable.

Testimonials:

"I've been buying from them for almost a year, and I LOVE the online farmers market. They have this website. On Mondays (twice a month now, but in high season, every week) you get an email telling you the market is open and a little about what's new this week. You log onto the website and pick out what you want to buy and go to "check out." The products you ordered are delivered on the following Thursday from 4 to 6pm at a church parking lot on Kanawha Blvd. (here in Charleston). Easy as pie!

I love being a member of MFM! I recommend it all the time.

I am a new member and just placed my third order. The service is wonderful and the MFM Representative is friendly, helpful and very responsive.

I have already referred other people to this program.

Contact

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"Thyme for Kids"

West Farm

\$1,002.79

Summary

Thyme for Kids was a youth project focusing on specialty crops (herbs) as part of a 4-H agriculture enterprises. The project took the participants through the entire cycle of budgeting, production, direct marketing, packaging and sales at the local farmers' market. The project was the focus of other 4-H activities including presentations as part of a Self-Determined 4-H project, involvement in state presentation competitions and leadership/mentoring roles with club members interested in pursuing similar specialty crop projects.

Activities/Approaches

Participated in poster contest, visual presentation competition, Junior Master Gardeners club and school program speaking about their project and the functionality of the herbs they were growing. Emphasis was on culinary usage.

Participated as a vendor at the local farmers' markets providing information and uses for herbs to market patrons.

Prepared and distributed literature and recipes to market participants demonstrating importance of value added features and consumer education needs in a market environment to club members.

Participated in SCBGP awards ceremony with Commissioner of Agriculture and conducted two interviews (radio and TV) about their project.

Results/Lessons Learned

Estimated media reach was over 60,000 households in the Lewisburg/Roanoke, VA broadcast region.

This activity was in fulfillment of a 4-H agriculture enterprise and part of an ongoing leadership development program. As vendors at the market and recordkeeping by 4-H enterprise products, the project demonstrated a complete cycle of project formulation, funding, implementation, record keeping and documentation. The project was a model for club members just beginning their agricultural enterprises and entrepreneurial efforts. The project met expenses and created several templates (recipe, budget, enterprise report) for use by club and youth members. Total revenue exceeded \$2,000.00 emphasizing the need to the club members for careful recordkeeping and decision making based on actual, added (with grant proceeds) and break even economic principles in any future enterprise.

The project provided the local market with another bonafide specialty crop vendor at the market to increase diversity and encourage additional shopping. As

members of the local market community, the participants were active in market promotion (including development and distribution of a press release—see photo below), responsible weekly reporting and shared production experiences.

More than 175 youth and adults were reached through the outreach and educational efforts of the project. The subrecipients competed in 4-H speaking competitions describing their efforts and were successful at the local, regional and state level while providing a positive modeling experience with specialty crop production at the forefront---future growers of specialty crops were potentially in the audience.

Long Term Outcomes

This project provided a positive first time specialty crop entrepreneurial workshop with club members seeing a project from start to finish. Of the six herbs grown, all were available for market with crops grown in the high tunnel available early in the market season. Future plantings would indicate a mix of high tunnel and outdoor planting to take advantage of shoulder seasons is important for a growing season of success.

Providing a realistic, real life example of how a project can be accomplished is important to gain interest and future projects for students. This program allowed the subrecipients to develop leadership skills by sharing their model and providing an example of how a youth project can impact the local food market.

Contact

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1. What was the issue, problem, interest or need for your project?

This project was designed and created to promote and market the consumption of specialty crops in West Virginia through several different venues including: *Manna Meal Soup Kitchen*, a non-profit organization that feeds the homeless; *Kanawha Valley Garden Association- Family and Youth Development Services*, an organization whose main goal is to involve community volunteers in gardening with at-risk youth, and to make vegetables available to the community at no cost; *Montgomery Farmers Market*, a brand new farm market located southeast of Charleston; and the *West Virginia Department of Agriculture*, in which staff members along with volunteers from the "Wellness Committee" maintained a large garden located at the Gus R. Douglass Agriculture Complex.

2. How did you approach each of the issues or problem described in Question 1? Match your project activities to the issues, problems and/or interests listed above.

- An allocation of \$1,490.09 was awarded to the Manna Meal organization for supplies (refrigeration unit supplies) to allow for storage and handling of specialty crops that will ultimately be used as part of the kitchen feeding operation. The Manna Meal Community Garden was created to help provide the organization with fresh produce. It is now in its 32nd year of operation feeding all guests with "no questions asked." Manna Meal serves breakfast and lunch to over 350 guests, seven days a week. Serving and cooking with wholesome, locally grown produce is of great importance to Jean Simpson, Executive Director for Manna Meal. Vegetables and herbs were grown in such abundance in 2009 that excess was shared with other downtown shelters. In 2010, the garden yielded 2,000 pounds of produce and the 2011 goal is 3,000 pounds. Manna Meal received their funding and has implemented the new shelving into their operation. The shelving is being used to store the crops that have been harvested from the Manna Meal Garden. Due to stricter health requirements, this shelving was a necessity for Manna Meal to continue storing fruits and vegetables.
- An allocation of \$1,200.00 was awarded to the Charleston Family and Youth Development Services, formed by Thomas Toliver, as a means for providing the community with intangible services including: positive role-models, positive activities, and help in forming a positive self-image. The project was to focus on youth with one or both parents incarcerated and the specialty crops raised was given back to the community in an effort to instill lessons in responsibility, self reliance and civic leadership. The goals of this project were to

develop land for community gardens, involve volunteers in gardening with at-risk youth, and to make fruits and vegetables available to the community at no cost. Each garden site that was developed provides ample time for community volunteers to interact with at-risk youth in need of positive role-models. The business of maintaining a garden becomes a positive alternative to negative peer pressure and delinquent activities. With each season, the garden yields an abundance of vitamin rich vegetables for the youth, their families, and the community to enjoy. As the youth see the fruits of their labors, they also cultivate in their incarcerated family members optimism and a positive self-image for themselves.

- Orchard Manor (c/o the Kanawha Valley Garden Association) received approximately \$1,000.00 to purchase raised garden bed kits and other supplies for its community garden. Orchard Manor is a property managed by the Charleston- Kanawha Housing Authority typically housing low-income families. During 2005, West Virginia State University Extension, in cooperation with Charleston Housing, and Lowe's of South Charleston, developed a Community Garden for Orchard Manor. Additions have been created each year and support for the garden project has greatly increased, as well as participation from tenants. Ranging from children to adults, this facility is also handicapped accessible and special needs populations participate in the gardening activities as both life skill education and occupational therapy. The project goal is to increase the number of families utilizing raised beds and the community garden.
- The Montgomery Farmers Market received \$209.00 to purchase supplies for the newly formed farm market located on the outskirts of Charleston, WV, which straddles both Kanawha and Fayette Counties. Located in a small town that is home to a large aged population and students from the local university, the West Virginia Cooperative Extension Service has targeted this community as one in great need of a farmer's market organization to provide outreach to farmers and supply much needed specialty crops to area residents.
- The West Virginia Department of Agriculture received the remaining funds totaling \$6,586.31. The project was designed to utilize the current greenhouse located at the WVDA Gus R. Douglass facility, activities of the "Wellness Committee", and to create a garden site located only ¼ of a mile away from the office building of most staff members. Recognized by the Governor's Office as an active and productive Workplace Wellness site, the Gus R. Douglass facility has been recognized as active participants in programs designed to provide education and activities that promote physical and mental well being. In the past, WVDA has done gardening projects to raise plant materials for the WV State Fair and other promotional programs. The project goal was to "marry" the activities of the Wellness Committee and contribute to the specialty crop supply of Manna Meal and other nonprofit community feeding centers.

3. What were the goals for the project?

- At least 3,000 pounds of specialty crops will be produced in the community gardens and distributed to low income and homeless members of the community.
- At least 300 hours of volunteer labor in the community gardens will be logged.

4. For each goal listed in #3, describe how they were achieved.

In order for all components of this grant project to be successful, site visits and meetings with all organizations and partners were held in order to review project goals and objectives. Meeting discussions included: each group's responsibility toward achieving their measurable outcomes, documentation requirements and all other project needs.

- Manna Meal's community garden was a huge success as a result of the regular volunteer base and the new additional help received from the announced "*Garden Work Parties*" that were hosted weekly.
- The Charleston Family and Youth Development Services and the Kanawha Valley Garden Association (Orchard Manor) were able to develop land for new community gardens and continue efforts of existing garden sites. In addition, with the help of numerous volunteers and mentors, both the interest in specialty crops and the participation in community gardens increased dramatically.
- The Montgomery Farmers Market was created in an effort to market specialty crops to a disadvantaged community and to provide access to locally grown crops. To assist in its marketing outreach, a new sign promoting locally grown specialty crops was created to help with the market's initial start up efforts.
- The West Virginia Department of Agriculture utilized its existing assets including: a vacant greenhouse, empty land that would be the future garden site, and the labor of staff members and volunteers from the "Wellness Committee." The close proximity of the garden to employee offices encouraged exercise, and promoted healthy eating habits through learning to garden.

5. Describe specific results, conclusions, lessons learned, success stories, testimonials or other documentation; use statistics and measurable results here.

- To conclude the 2011 growing season, Manna Meal harvested 3,000 pounds of produce from its community garden, utilizing 120 volunteers and 922 hours of labor. Specialty crops grown included: tomatoes, potatoes, green beans, cabbage, beets, squash, cucumbers, carrots, herbs, kale, onions, lettuce, garlic, peas, and collards. The produce that

was not being immediately used was preserved through drying, freezing, and canning to be used in cooking during the winter months when fresh produce is not available. Having this produce for the winter will help individuals receive nutritious foods that would otherwise not be available to them.

- The Family and Youth Development Services efforts' resulted in one new functioning community garden on Charleston's West Side. Two additional sites are currently being developed; one for raised bed gardening and another for conventional gardening. Thirteen children worked approximately 47 hours each month maintaining the garden alongside a designated mentor. There was a total of 300 volunteer hours between all garden sites. A total of 21 raised beds were completed. A total of 278 pounds of fresh specialty crops were harvested; *75 lbs. of tomatoes, 15 lbs. of peppers, 30 lbs. of green beans, 0 lbs. of corn, 20 lbs. of squash, 30lbs. of turnips and greens, 50 lbs. of collard greens, 5 lbs. of spinach, and 10 lbs. of kale.*
- The Kanawha Valley Garden Association (Orchard Manor) was a success as 12 4x8 raised beds were constructed utilizing 74 bags of potting soil. Volunteers from KVGA donated time, knowledge, vegetable plants and seeds to assist residents. Approximately 175 hours was spent in the garden. Some beds were split in half amongst 2 families; others were for 1 house hold. Residents were able to grown their own produce in an effort to become more self-sufficient. Individuals with disabilities gained access to gardening, as some beds were elevated on a table surface allowing wheelchairs and/or walkers to meet garden height. Many of the residents would not have access to fresh specialty crops if not for the community garden and the raised beds, but now they are able to harvest the fruits of their labor to prepare healthy meals for their families. Children in the Orchard Manor complex were also taking part in the gardening; they have learned the importance of a healthy diet and have learned the value of self- sufficiency. Approximately 185 pounds of produce was harvested, including: squash, zucchini, tomatoes, cucumbers, kale, and greens.
- The Montgomery Farmers Market featured a 36x180 nylon banner on the day of their grand opening. The banner included the name of the market along with the slogan, *"100% Locally Grown Food"* and colored graphics on each end featuring various specialty crops. The signage was extremely helpful in drawing attention to the new market and to encourage people to try locally grown produce. In its first year of operation, the market was open during the summer on Wednesdays. The market was very successful in attaining vendors, as well as increasing its customer base over the first year. This has promoted healthy eating habits throughout the community and allowed access to fresh, locally grown specialty crops. The market is hoping to expand its hours and days of operation next year.
- The West Virginia Department of Agriculture garden was very successful its first year. Staff members and members of the Wellness Committee

logged approximately 330 hours in the garden and a total of 325 pounds of specialty crops were produced and donated to the Manna Meal soup kitchen. Crops harvested included: *tomatoes, onions, bell peppers, banana peppers, watermelon, corn, potatoes, beets, radishes, cucumbers, squash, zucchini, and a variety of herbs*. On August 9, 2011, Commissioner Gus R. Douglass presented the largest harvest of the year to Manna Meal (approximately 98 lbs.). This event was televised on 3 different local news stations, as well as in the local newspapers. In his presentation, the Commissioner promoted the Specialty Crop Block Grant Program and encouraged individuals to take advantage of the opportunity. He also stressed the importance of specialty crops and encouraged people to eat healthy by consuming more of them and to be self-sufficient and grow their own.

6. What were the long term outcome measures for the project? Describe the progress made towards obtaining these long term outcomes. Did the grant activities contribute towards achieving these goals?

This project tied physical activity to gardening and emphasized to individuals the importance and benefit of growing one's own garden for his or her own production/consumption. Individuals have gained the knowledge and hands on experience to be self-sufficient and the ability to continue providing specialty crops to their families on their own. Additional funds received were used to create further sustainable production for the future. In 2012, we will expand the project to increase the following: production of specialty crops, the number of individuals receiving specialty crops, and the number of hours dedicated to health and wellness through specialty crop production (gardening).

7. Attach additional information including publications, field day announcements, published reports, web sites, photos of other grant activity materials. Be sure to include copies that have the Specialty Crop Grant funding statement.

Pictured below: Aug. 9, 2011- WVDA staff members and Gus R. Douglass, Commissioner of Agriculture, deliver harvest to Jean Simpson, Executive Director of Manna Meal



Pictured below: Article published in Charleston Daily Mail, August 10, 2011



Pictured below: Banner purchased to aid in the Montgomery Farmers Market's grand opening, summer 2011



Pictured below: Volunteer at Orchard Manor community garden site. 12 raised bed kits along with 74 bags of potting soil were delivered to residents to assist in their gardening efforts



List a contact person for the project with a telephone number and email address for future WVDA or USDA contact.

Melissa Beller, *Marketing Specialist, Marketing & Development Division, WVDA*

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Summary

This project featured collaboration between NCIF, UCDA and NAFRC to create a business model that captured economic leakage of agriculture in WV by a local food system. The project created a processing facility that helps farms have an outlet for their crops through a system that allows them to have their product cleaned, graded, packaged, branded and distributed. The grant funds were used to develop and educate consumers about a locally developed brand.

The focus of this brand development was to create a cadre of growers to aggregate their products under one brand to penetrate a larger market. Fourteen producers participated in the brand development with a total combined increase in overall production for two growing seasons were: 48 acres of production, 8 greenhouses, 6 high tunnels, 40 cold frames, 10 raised beds, 1375 shiitake mushroom logs, 129 bee hives, 5 new varieties of potatoes, 3000 crowns of asparagus, 500 rhubarb crowns, and a variety of value added products. Overall Increased Sales 2009: \$522,700 and overall Increased Sales 2010: \$206,380

Activities and Approaches

- Inventory of Farms: Production Capacity, Markets, and Generated Revenues
- Brand Development: Fish Hawk Acres
- WV Economic Development Authorities: Speaker at annual meeting/Stonewall
- Participation as a vendor and mentor in 2009 Farmer's Market in Buckhannon, collecting potential growers to become part of the "family of farms" under the Fish Hawk Brand....coaching on what to grow, how to grow it and scale.
- Work with board of Buckhannon farmers' market on planning the new Upshur County farmer's market.
- Hosted 3 sets of FFA students (20 students) from BUHS Spring 2009...April/May
- Upshur County Development Authority presentation to business leaders...building a public/private venture for making Upshur County an agricultural model for the state.
- Buckhannon-Upshur High School FFA Banquet keynote address at annual banquet...standard speech on building a local food economy and the opportunities/potential impacts on the region.
- Asset Mapping for Upshur County: This phase consisted of A.) Creating an inventory of farms, markets and potential "partners" and ranking their relative value to this initiative and B.) Strategizing about how to build on the assets in order to develop a local food system.

- Economic Impact Study: This study gauges the total economic impact this initiative can have on the community by assessing the effect of the direct financial outlay and the resulting purchases by organizations and individuals with whom the proposed “processing facility” does business.
- On-Farm event assistance of Mythology Marketing—asset mapping for Upshur and surrounding communities.
- On-Farm event for shareholders...inviting farmers to be part of market meeting their clients and connecting them to a market in which they can get a premium for products.
- Speaker at Region VII Planning annual dinner
- Training Sessions at New Appalachian Farm and Research Center’s Demonstration Farm:
- Attendance at these training sessions varied--from 4 to 5 at the low end and 12 to 15 at the high end--depending on people’s availability. For virtually all of the people attending these sessions the information presented was entirely new--that is to say that while certainly they had seen in some periodical or other pictures of Plasticulture and drip irrigation, actually seeing what was involved and how to do it was new. Or with topics like integrated pest control, again while they may have seen something in an agricultural periodical, they really had no real sense of how worked and what the dynamics of it were.
- Regarding training: getting farmers to the point where they are actually competent in one of these areas takes a significant amount of repeat training. For example, when Lewis Jeff actually critiqued the field where we had put in plastic mulch, he provided several suggestions about how it might have been more successful.

Inventory of Farms: Production Capacity, Markets, and Generated Revenues

The Hawkins Farm

Owned and operated by Dale Hawkins, this family farm is situated in Rock Cave and boasts 56 acres of meadows, hardwood forest, pastures, and 2 ponds. 2008 production consisted of ½ Acre of Garden with over 100 varieties of vegetables, herbs and flowers. The only market was a CSA with 30 members that lasted 20 weeks; sales of \$12,000 for the year.

2009 production increased significantly. Three acres of field crops, (2) 25’x50’ green houses, (25) 4’x12’ cold frames, and (10) 4’X12’ raised beds were added to the mix with over 140 varieties of vegetables, herbs and flowers. In addition, a value-added line of jellies, preserves, and mustards were added to the marketing mix. The CSA had some marketing research put behind it through Maple Creative and was branded under a common brand (Fish Hawk Acres), then split into (3) eight week seasons (spring, summer, fall) and sold over 200 subscriptions. Other venues included the Buckhannon Farmer’s Market, and a Garden Center at Rock Cave IGA that enabled sales of bedding plants. Sales topped \$55,000.

Increased Production: 3 ½ Acres of field crops, 2 green houses, 25 cold frames, 10 raised beds

Increased Sales: \$43,000

2010 production was increased by adding two additional green houses and 15 cold frames. The CSA morphed into a new model by splitting the seasons into 6 week increments. A survey of clients indicated that they were willing to buy smaller amounts of time more frequently than buying into the old system (2009). By doing do, Fish Hawk Acres could offer six full season—spring, summer, late summer, fall, and for the first time a November and December Share that morphed into the addition several new products by West Virginia producers and offered multiple price points.

The marketing mix included the following:

Products: CSA (Community Supported Agriculture): products from 14 producers, value added line (jams, jellies, preserves), Added Unpasteurized Apple Cider to product line.

Price: Multiple price points

Place: Buckhannon Farmer's Market, Bridgeport Farmer's Market, CSA State Wide, Began selling to restaurants (Café Cimino, Mountaineer Grille, Provence Market, Market Bistro, Bridge Road Bistro, Berry Hills Country Club)

Promotion: Articles about Fish Hawk Acres and NAFRC were featured in the following: (Copies enclosed) The Exponent Telegram, The Charleston Gazette, WV Living Magazine, and 2010 WV Travel Guide.

Increased Production: Added 2 green houses, 15 cold frames and 2000 crowns of asparagus. Additional value added products included Apple Cider, Pumpkin Butter, Apple Butter and Molasses.

Increased Sales: \$21,500 (total revenues: \$76,500)

NAFRC—Support and Mentoring: The Hawkins Farm was the host site for the following workshops and seminars:

1. Growing Specialty Crops
2. Sustainability, soil preparation, and green manure
3. Season Extension
4. Building a Cold Frame and Hoop House

Circle H Farms

The steward of Circle H is Angie Harlow. She pasture grazes Icelandic sheep for wool, laying hens and angora rabbits. 2008 production included wool and eggs marketed locally with sales of \$2000. Her addition of specialty crops (strawberries, herb and vegetable production) were the focus of her work with NAFRC under this grant.

2009 Production: Angie added strawberries, herb and vegetable production to the farm. 3000 strawberry plants were planted in the spring on ½ acre plot. Vegetable production included carrots, beets, spinach, peas, potatoes, onions, lettuce and radishes. Venues included the Buckhannon Farmer's Market, Hometown Market (selling spun wool and wool products) and she joined the family of farms supplying Fish Hawk Acres. She also began making soaps from herbs produced on the farm. Total revenues for 2009 were \$4000.00

Increased Production: ½ Acre

Increases Sales: \$2,000

2010 Production: This year brought about changes for Circle H. Rather than increasing production, Angie focused on developing new products and markets. She maintained the 2009 level of production with strawberries, vegetables and herbs and turned attention to health and beauty products made from agricultural products: i.e. soaps and lotions. She found that by doing a little less work on the farm and supplementing with herbs and wool from other local growers the add-on value can increase both revenues and profits. Total revenues were \$8,600.

The Marketing Mix included the following:

Place: Hometown Market became a new venue offering up a space to retail the soaps, lotions, and wool. Additionally, classes were offered with hands on approach, engaging

more consumers in the process of production. Angie continued participation in selling her fruits, vegetables, and herbs through the Buckhannon Farmer's Market, Fish Hawk Acres CSA, and Hometown Market.

Promotion: Angie promotes her business through Fish Hawk Acres, Hometown Market, Buckhannon Farmer's Market and through social media; Facebook.

Increased Production: Agricultural Production through acreage remained the same. However; production of products increased significantly.

Increased Sales: \$4,600

NAFRC—support and mentoring:

The principle of having products to sell year-round helped to guide the entrepreneurial spirit of Circle H Farm. By attending some of the workshops provided by NAFRC, the buy local movement as an economic trend emphasized this opportunity and presented itself in a way for Circle H Farm to value add farm products and explore entrepreneurship.

Cecil McCartney

Cecil is a retired air traffic controller that has been into farming potatoes for decades. In the past, he grew standard varieties common to Central West Virginia i.e. Red Pontiac and Kennebec. He began selling to Stonewall Resort in 2007 and quickly learned that he could significantly increase his revenues by specializing in fingerling potatoes. In 2008 he grew 5 varieties of fingerlings and sold to Stonewall Resort and the Buckhannon Farmer's Market. Total sales for 2008 were \$18,500

2009 Production: Cecil expanded his offerings by adding 6 new varieties of fingerlings. He continued to sell to Stonewall Resort, added 2 restaurants and joined the Fish Hawk Brand. Total revenues for 2009 were \$22,300

Increased Production: Offering 5 new varieties of Fingerling Potatoes

Increased Sales: \$3,800

2010 Production: Continuation of 2009 production and added super sweet corn as a new product and began experimenting with a South American root crop known as the Yacon for the purpose of producing a yacon syrup as a value added product. Yacon syrup is a sugar substitute native to the Andean region of South America. It is glucose-free, and does not increase blood sugar levels. Because of this, Yacon syrup is often recommended as a sweetener to those suffering from diabetes or at risk for becoming diabetic. While Cecil is still in the development stages of this product, he hopes to be able to get it to market by 2012. He is working with Gourmet Central on development of the new product. Total revenues were \$24,400

The marketing mix included the following:

Products: 11 varieties of Fingerling Potatoes, Super Sweet Corn

Price: The quality of corn allowed Cecil to get \$6/ dozen for his corn and it was always the first to sell out at the market.

Place: Buckhannon and Bridgeport Farmer's Markets, Fish Hawk Acres CSA, and 4 Restaurants.

Promotion: Cecil marketed almost exclusively through the Fish Hawk Brand and the Farmer's Market

Increased Production: 1 acre of Super Sweet Corn; progressively sewn for a continuous 10 week harvest and 1 acre of Yacon.

Increased Sales: \$2,100

NAFRC—support and mentoring

Cecil attended two of the workshops provided by NAFRC

1. Entrepreneurship: he was interviewed as part of chronicling process.
2. Season Extension: Employing the use of Plastic-culture and drip irrigation.

Hidden Acre Farms

Started in 1994 after moving from New Jersey, Scott and Flo Little began their shiitake mushroom operation with only 500 logs. In 2008 they had 2000 logs in production with a total yield of 1200 pounds of mushrooms. Markets included the Greenbrier Resort and Stonewall Resort with a wholesale market price of \$6 per pound and retail at \$10 per pound. Total revenues for 2008 were \$7000.

2009 Production: Scott and Flo added 500 additional logs to production bringing the total to 2500 with a yield of 1500 pounds. They joined the Fish Hawk Acres Brand and began distributing through the CSA. Total sales for 2009 were \$8500.

Increased Production: 500 logs

Increased Sales: \$1,500

2010 Production: Log production increased to 3,375 logs. With the hot humid summer, they experienced a bumper crop of mushrooms and had trouble selling the excess, so the additional fungi was turned into a value-added product—dehydrated shiitake mushrooms. Sold in one ounce bags, this new product fetched a premium price in both wholesale and retail markets. Total sales for 2010 were \$13,880.

The Marketing Mix included the following:

Products: fresh and dried shiitake mushrooms

Price: Dried Shiitake mushrooms sold for \$4 per ounce (wholesale) and \$8 ounce (retail). Fresh mushrooms sold for \$6 pound wholesale and \$10 pound retail

Place: By tapping into the Fish Hawk Brand, this was the first year since beginning mushroom production, that the Little's' did not have to make a weekly trip to The Greenbrier to move these jewels

Promotion: All the mushrooms were distributed through the Fish Hawk Brand; through CSAs, Hometown Market, 3 farmer's markets and 6 restaurants.

Increased Production: 875 logs

Increased Sales: \$5,380

NAFRC—support and mentoring

Scott and Flo attended one of the workshops provided by NAFRC

1. Entrepreneurship: Flo was interviewed as part of chronicling process.

Central West Virginia Nursery

As a retired horticulture teacher, Aubrey Wilson began his nursery nearly 35 years ago. Rather than using fields in the country for production, he transforms empty lots in the city of Buckhannon into Urban Farms. Crops include strawberries, Asian Greens, Lettuce, Cabbage, Broccoli, Corn, Cucumbers, Squash, Tomatoes, Beans, Potatoes and Beets. In 2008 he had five lots within the city limits totaling about 2 ½ acres of production and one high tunnel (20'x50'). Markets included Buckhannon Farmer's Market, and his nursery on Kanawha Hill, which he also uses for his landscape business. Total revenues for 2008 were \$48,000.

2009 Production: As a former Strawberry Festival King, Aubrey realized the challenges Upshur County faced with the Strawberry Festival being held earlier every year. 98% of strawberries for the festival were coming from Florida or California. In 2009, Aubrey added another high tunnel (same size) and experimented with strawberry production. He had strawberries for the Strawberry Festival and charged a premium for them (\$6 per pound). He continued with the Farmer's Market and joined the Fish Hawk Acres Brand to supply CSAs. Total revenues topped \$62,000.

Increased Production: High Tunnel 25'x50'

Increased Sales: \$14,000

2010 Production: High Tunnel 25'x50' and ½ acre plot. ***Aubrey Died on Sunday July 11, 2010*** of an apparent stroke while driving his tractor. He was a true 4-H All-Star and exemplified his service to the 4-H youth of Upshur County. Our community will miss all he did and stood for.

The Marketing Mix included the following:

Products: Bedding Plants, fruits, vegetables, flowers, herbs and nursery supplies

Price: Multiple pricing tiers

Place: In addition to being part of the Fish Hawk Brand, Aubrey also sold at the Buckhannon Farmer's Market and from his Nursery on Kanawha Hill

Promotion: Aubrey wrote a column for the Record Delta about the Buckhannon Farmer's Market and was constantly recruiting new youngsters for farming and market projects.

Increased Production: High Tunnel 25'x50' and ½ acre plot

Increased Sales: Not known.

NAFRC—support and mentoring

Aubrey attended 4 of the workshops provided by NAFRC:

1. Entrepreneurship
2. Season Extension
3. Building a cold frame/hoop house
4. Growing Specialty Crops

Cole Farms

CD Cole has been a cattle farmer his entire life. His farm, located in Jane Lew (Lewis County) is over 1000 acres and is the only farm in the Fish Hawk Acres portfolio that is not in Upshur County. In 2008, he turned 15 acres into vegetable production using plastic mulch and drip irrigation. He had 3 road side stands (Buckhannon, Jane Lew, and Weston). Total Revenues were \$300,000.

2009 production increased three fold to 45 acres. Crops included corn, potatoes, onion, peppers, tomatoes, cabbage, pumpkins, watermelon, cantaloupe, squash, beans, strawberries, bedding plants, garden mums and cucumbers. He added 3 greenhouses (100'x200' each). Venues included 12 road side stands (from Morgantown to Charleston) 7 Foodland Stores, Pick Your own, Bridgeport Farmer's Market, Fish Hawk Acres, Rock Cave IGA, and Several Restaurants. In the fall of 2009, a corn maze was added and Cole Farms broke into Agri-Tourism. Total sales were over \$720,000.

Increased Production: 30 Acres, 3 Green Houses

Increased Sales: \$420,000

2010 Production crop size stayed the same as 2009 and a 3 bay greenhouse was added to do bedding plants (45'x110'). Newly pursued crops were for the bedding plant and hanging basket business. CD indicated late in the season that he would not be pursuing a production season in 2011 citing that his children were more interested in the livestock side of farming and he wanted to give that his attention. He did say during an interview with us at the end of the year that he hopes that people in West Virginia realize the amount of money that can be made from vegetable production. In 2010, CD realized over \$100,000 in net profit solely from his vegetable production. As a commitment to his hope of helping West Virginia find its way in agriculture, CD has donated upwards of \$80,000 in equipment to NAFRC to use in its workshops and seminars which will help to grow our food systems. His total sales for 2010 topped \$850,000.

The Marketing Mix included the following:

Products: included the same crops as 2009 with the addition of bedding plants and hanging baskets.

Price: ranged from \$1 for a candy onion up to \$35 for a hanging basket.

Place: CD maintained all wholesale accounts and even added some additional ones. He cut back on the amount of road side stands due to the labor shortage.

Promotion: In addition to selling through the Fish Hawk Brand, CD used 4 Farmer's Markets and 4 Road Side Stands as direct markets.

Increased Production: 45'x110' 3 bay greenhouse

Increased Sales: \$130,000

NAFRC—support and mentoring

Little Stingers Apiary

Seth Shaver and his family started bee keeping in 2006. Seth is 13 years old and started with 20 hives. In 2008 he had 74 hives and sold at the Buckhannon Farmer's Market and wholesale to several stores in the area. Total sales for 2008 were \$8200

2009 Production: Seth had 89 hives and began selling at the Bridgeport Farmer's Market where he soon realized he could get a premium for his honey. He also joined forces with the Fish Hawk Acres Family of Farms and added a couple more wholesale accounts. Sales increased to \$11,700

Increased Production: 15 hives

Increased Sales: \$3,500

2010 Production: At the peak of season, Seth and his father were tending to 203 bee hives. Not just on their own property—they were also helping other growers in the area with pollination, including 4 of the 14 farms in the Fish Hawk portfolio. Total revenues were \$18,300

The Marketing Mix included the following:

Products: In addition to honey by the jar and bear (6 sizes), creamed honey and pecan honey were added to the product line.

Price: Ranged from \$2.50 for 4 ounces up to \$12 for a quart

Place: All sales were wholesale accounts with the exception of the Bridgeport and Buckhannon Farmer's Markets.

Promotion: The only marketing done for Little Stingers Apiary was through the Fish Hawk Brand and Seth maintains a Facebook account.

Increased Production: 114 hives

Increased Sales: \$6,600

NAFRC—support and mentoring

JCH Mountain Farm

Owned and Operated by Mike and Becky Walton and their three children, JCH has pastured chickens and goats, vegetable and fruit production and value added products. Mike is a pharmacy technician at St Joseph's Hospital and Becky is a substitute teacher in the Upshur County School system. Their three children are involved in 4-H. 2008 revenues included the Buckhannon Farmer's Market with sales of \$5,500.

2009 production: remained the same, but new venues provided an outlet for sales of hot pepper butter through the Fish Hawk Acres brand and an introduction to the Hometown Market located next to West Virginia Wesleyan College. Total revenues for 2009 were \$7,300.

Increased Production: None

Increased Sales: \$1,800

2010 Production: 2009 sales of their signature hot pepper butter were very successful and in order to keep up, the Walton's increased production by adding a ½ acre plot dedicated to growing wax peppers. Total revenues for 2010 were \$9,700.

The Marketing Mix included the following:

Products: Hot Pepper Butter, Hot Pepper Jelly, Blackberries

Price: Pepper Butter and Pepper Jelly \$5-7; Blackberries \$8 quart

Place: Buckhannon Farmer's Market, Hometown Market, West Virginia Department of Agriculture Country Store, and Fish Hawk Acres CSA.

Promotion: Through West Virginia Department of Agriculture and Fish Hawk Acres

Increased Production: ½ Acre

Increased Sales: \$2,400

NAFRC—support and mentoring

Becky attended 5 of the workshops provided by NAFRC:

1. Entrepreneurship

2. Season Extension
3. Building a cold frame/hoop house
4. Growing Specialty Crops
5. Post-Harvest Production

Waggy Farm

Bob Waggy is retired and spends his golden years growing vegetables. With 1 acre in production, he has just enough to sell at the Buckhannon Farmer's Market. Most of the acre is given to tomatoes, onions, beets, carrots and cabbage. Total sales for 2008 were \$5800.

2009 Production: Bob increased his production by ½ acre bringing total production to 1 ½ acres. He also added 2 high tunnels 25'x50' in which he experimented with season extension on tomatoes. He found that he had tomatoes four weeks earlier than everyone else and the quality of fruit being produced was superior to that of the conventional field crop, thus giving him a better market yield. In addition to the Farmer's Market, he also became part of the Fish Hawk Group. Total sales for 2009 were \$12,100.

Increased Production: 2 High Tunnels

Increased Sales: \$6,300

2010 Production: Bob participated in the cost-share program offered by extension thereby allowing him to add an additional high tunnel. He also added ½ acre of field production. Total revenues for 2009 were \$16,600.

The Marketing Mix included the following:

Products: Vegetables; heirloom tomatoes, green onions, beets, cabbage, carrots, and cucumbers.

Price: Multiple price points

Place: Waggy's sold to Buckhannon Farmer's Market, two restaurants, and Fish Hawk Acres CSA.

Promotion: Fish Hawk Acres

Increased Production: ½ acre and 25x50 high tunnel

Increased Sales: \$4500

NAFRC—support and mentoring

Bob attended 3 workshops provided by NAFRC:

1. Entrepreneurship
2. Season Extension
3. Growing Specialty Crops

Shipley's Forest Hills Farm

Barbara Shipley and her husband Randall grow vegetables on their 200 acre farm just outside of Buckhannon. They sell their product at the Buckhannon Farmer's Market.

2008 revenues were just over \$23,000

2009 Production: In 2009, Barbara retired from the USPFO and became devoted full time to farming. She increased her vegetable production to 2 acres and began a line of value added jams, jellies, preserves and breads made from farm products. In addition to the Buckhannon Market, she began selling to the Bridgeport and Elkins Farmer's Markets and began supplying to the Fish Hawk Brand. Total revenues for 2009 were \$31,300

Increased Production: ½ acre vegetables, value added line

Increased Sales: \$8,300

2010 Production: Regular vegetable production remained at 2 acres but beef production increased by 10 head of cattle. Total revenues topped \$40,000.

The Marketing Mix included the following:

Products: 8 varieties of jams and jellies, potatoes, sweet potatoes squash, cucumbers, tomatoes, and sweet corn.

Price:. Jams, Jellies go between \$4 and \$8.

Place: Bridgeport, Buckhannon, and Elkins Farmer's Markets, and Fish Hawk Acres.

Promotion: Fish Hawk Acres

Increased Sales: \$8,700

NAFRC—support and mentoring

Barbara attended 5 workshops provided by NAFRC:

1. Entrepreneurship
2. Season Extension
3. Building a cold frame/hoop house
4. Growing Specialty Crops
5. Post-Harvest Production

Hickory Hill Farm

Started by Steve Butler in 2005, Hickory Hill Farm is focused on increasing strawberry production in Upshur County. 2008 production consisted of 5000 strawberry plants and 10 bee hives. Limited participation in the Buckhannon Farmer's Market and most sales were that of pick your own. Revenues were just under \$6000 for 2008.

2009 Production: In 2009 another 5000 plants were added and 5 more bee hives.

Steve began using plastic mulch and drip irrigation on his production. Venues remained the same and revenues were up \$1200 over 2008 to \$7200.

Increased Production: Doubled Strawberry Production, added 5 hives and began using plastic mulch and drip irrigation.

Increased Sales: \$1,200

2010 Production: Steve added 2 acres of production to his farm in 2010 employing the use of plastic mulch and drip irrigation. He added pumpkin and winter squash to the crops and maintained the 10,000 strawberry plants from the two previous years. This was the first year of harvest from all the plants. Total revenues were \$14,300.

The Marketing Mix included the following:

Products: Strawberries, Pumpkins, Winter Squash, Pumpkin Butter, and Pumpkin Syrup

Price: Pumpkins and Winter squash sold for 50 cents per pound, strawberries at \$8 gallon. Pumpkin Butter and Pumpkin syrup sold at \$4 wholesale and \$7 retail.

Place: Buckhannon Farmer's Market, Fish Hawk Acres, Rock Cave IGA, Pick your own.

Promotion: Fish Hawk Acres

Increased Production: 2 acres

Increased Sales: \$7,100

NAFRC—support and mentoring

Steve attended 3 of the workshops provided by NAFRC:

1. Entrepreneurship
2. Season Extension
3. Post-Harvest Production

Floral Acres

A pick-your-own blueberry farm, two sisters own this operation with over 1500 bushes that bear from June through August. Their only market is pick-your-own. Sales for 2008 were \$12,300

2009 Production: In 2009, Floral Acres added 750 additional bushes, but will not harvest anything for about three years from the new plants. 2009 sales were \$14,700

Increased Production: 750 blueberry bushes

Increased Sales: \$2,400

2010 Production: Another 750 bushes were added bringing the total to 3000. Over half will not be able to be harvested for 1-2 years. 2010 revenues were \$15,800.

The Marketing Mix included the following:

Products: Blueberries

Price: \$8 gallon

Place: Pick your own—at the farm. We at Fish Hawk pick the berries and use them in our CSAs

Promotion: None

Increased Production: 750 bushes

Increased Sales: \$1,100

NAFRC—support and mentoring

North Hills Nursery

Operated by John Chidester, production is focused on bedding plants and limited Asparagus and Rhubarb. John has two green houses (25'x50') and does ¼ acre of brambles. Sales are only at the nursery and in 2008 totaled just over \$25,000.

2009 Production: In 2009, John added a high tunnel (25'x50') to do tomato production. He switched ½ of one green house to succulents and began marketing via the internet. Sales for 2009 were \$31,100.

Increased Production: 1 high tunnel

Increased Sales: \$6,100

2010 Production: John planted 1000 crowns of Asparagus and 100 crowns of rhubarb (1 acre). He will not harvest until 2013 but then will have 20-30 years of harvest from these two perennials. He plans to add 500 crowns of asparagus each year for the next 5 years and 25 crowns of rhubarb. Additionally he added ½ of blackberries this year. Total revenues increased \$36,000.

The Marketing Mix included the following:

Products: Blackberries, Raspberries, Rhubarb, Asparagus, Tomatoes, Succulents

Price: Brambles sold for \$8 quart, Rhubarb \$3 pound, Asparagus \$3 pound, Tomatoes \$2-3pound (depending on variety)

Place: Sold directly from nursery and internet

Promotion: Supplied Fish Hawk Acres in the spring with Asparagus and Rhubarb and Summer/Fall with Brambles

Increased Production: 1 ½ acres

Increased Sales: \$4,900

NAFRC—support and mentoring

John attended 3 of the workshops provided by NAFRC:

1. Entrepreneurship
2. Season Extension
3. Post-Harvest Production

Sun up Farm

Owned by John and Cynthia Gay—John is a construction contractor and Cindy is a registered nurse. Their son John Jr. is in 4-H and has several ag projects in which he participates. Sun up is focused on potatoes, rhubarb, and strawberries. Production is just over 2 acres and 2008 venues included the Buckhannon Farmer's Market and sales of \$9,700.

2009 Production: In 2009, they increased production to 6 acres of just potatoes and added more strawberries. They employed the use of plastic mulch and drip irrigation. In addition to the market, they tapped wholesale markets like Wendling Food Service, Rock Cave IGA and several other smaller venues. Sales increased to \$18,500.

Note: a bumper crop of potatoes in 2009 made it difficult in moving over 2000 bushel of potatoes at the end of the season. They ultimately had to lower their price and sold some as seed potato for the upcoming season.

Increased Production: 4 Acres and began using plastic mulch and drip irrigation

Increased Sales: \$8,800

2010 Production: 10,000 day-neutral strawberries were planted employing the use of plastic mulch and drip irrigation. By using day-neutral varieties, they were able to begin harvesting this year on the new plants. In addition to adding 2 acres of strawberries, they also added ½ acre of rhubarb crowns. Sales topped \$26,000.

The Marketing Mix included the following:

Products: Strawberries, rhubarb, potatoes and some pumpkins

Price: Potatoes sold for \$3.99 for 10 pounds, strawberries \$4 quart, and

Place: Wendling Foodservice, Buckhannon Farmer's Market, Rock Cave IGA, and Fish Hawk Acres.

Promotion: Fish Hawk Acres

Increased Production: 2 ½ acres

Increased Sales: \$7,500

NAFRC—support and mentoring

John attended 5 of the workshops provided by NAFRC:

1. Entrepreneurship
2. Season Extension
3. Building a cold frame/hoop house
4. Growing Specialty Crops
5. Post-Harvest Production

Summary

Overall Increased Production 2009:

- 38 ½ Acres
- 5 Green Houses
- 4 High Tunnels
- 25 Cold Frames
- 10 Raised Beds
- 500 Shiitake Logs
- 15 Bee Hives
- 5 New Varieties of Potatoes and other Specialty Crops
- 750 Blueberry Bushes
- 3 producers began using plastic mulch and drip irrigation

Overall Increased Production 2010:

- 9 ½ Acres
- 3 green houses
- 2 high tunnels
- 15 Cold Frames
- 875 Shiitake Logs
- 114 Bee Hives
- Specialty Crops: Yacon, Super Sweet Corn, 3000 crowns asparagus, 500 rhubarb crowns
- Value Added Products: Apple Cider, Apple Butter, Pumpkin Butter, Pumpkin Syrup, Molasses
- 750 Blueberry Bushes

Overall Increased Sales 2009:

\$522,700

Overall Increased Sales 2010:
\$206,380

2008 Acreage 2009 Acreage 2010 Acreage % Increase

29 Acres 67.5 Acres 77 Acres 37%

2008 Sales 2009 Sales 2010 Sales % Increase

\$483,000 \$1,005,700 \$1,212,080 40%

Lessons Learned and Long Term Outcomes

Direct Marketing and Building Regional Capacity is the foundation of what New Appalachian Farm and Research Center is committed to doing. We have secured funding through a USDA Rural Business Enterprise Grant to equip and processing facility and a farmers market for a four county region which will help growers continue to expand their markets. Additional funding is being sought from the Benedum Foundation to continue these next steps



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"Station Domination"

West Virginia Department of Agriculture with the West Virginia Division of Tourism

\$2,000.00

Summary

In conjunction with an agritourism and culinary tourism focus by the West Virginia Division of Tourism at its yearly "Station Domination" Washington DC event, the West Virginia Department of Agriculture partnered to focus on specialty crops as a part of the menu.

The activity was developed to highlight specialty crop agritourism product (i.e. Orr's Farm Market) from West Virginia near the metro DC area both for on farm visits and as an educational tool to explore the vast number of specialty crops available for catering, food service and individual consumption for those working, living and/or commuting to Washington, DC.

Activities/Approaches

This project had two activities. The first was held at the locally popular "Founding Fathers" restaurant. The venue focuses on local products and they were able to accommodate a mid day meeting. Invited participants included local media and tour operators interested in providing agritourism and culinary stops on their itineraries or copy for traveler information. Specialty crops were featured on the menu prepared by the Founding Fathers' staff and the West Virginia consultant, Chef Dale Hawkins (New Appalachian Farm & Research Center).

The second activity was held at the Capitol Complex for the annual meeting of the West Virginia State Society. Featuring Washington DC area residents with West Virginia roots, this annual gathering is an opportunity to celebrate West Virginia and the work being done at the national level. For this event, Chef Hawkins prepared a menu rich in West Virginia specialty crops featuring the farmers that are represented by the officials and attendees. Signage and attendance by several of the producers along with information about DC area locations (farmers markets, roadside stands, etc.) where these products could be obtained solicited many comments about not realizing how close West Virginia products were available nearby.

Results

Two major events in one day featuring specialty crops was a major undertaking. Sourcing all products locally and presenting them while providing follow-up materials forced all participants and partners to work cooperatively. Partners included WV Division of Tourism, WV State Society, WV Professional River Organization, WV State Parks, Chesapeake Energy, WV Living Magazine, The Greenbrier Resort, Inwood Farmers Market, New Appalachian Farm &

Research Center, White Oak Farm blueberries, Mountain Top Farm strawberries, Fisher Ridge Winery, Jones Cabin Run Winery, West Virginia Fruit & Berry, Ridgefield Farm, Orr's Farm Market and the 14 farms that work with the Fish Hawk Acres network of farmers.

Specialty crop products provided included West Virginia wines, asparagus, greens and lettuce, tomatoes, potatoes, fresh herbs, hickory nuts, blueberries, strawberries, apples, sparkling apple cider, peppers, garlic, and raspberries.

Mention of the event and West Virginia specialty crops was made in an article based on an interview for "Military Times" magazine (circulation 246,000+). A meeting with New World Travel resulted in a request for two itineraries for specialty crop based attractions in the Eastern Panhandle (Orr's, Ridgefield, Inwood Farmers Market) and southern part of the state (Tamarack, Beckley Farmers Market, etc.). Ultimately, a booking with Fresh Feast on the Farm and local tour was conducted from the itineraries.

Orr's Farm Market reported a significant increase in Washington DC based visitors including a tremendous increase in participation for their fall festival based on license plate survey.

Chefs Dale Hawkins and Teresa Burns were responsible for menu preparation, ingredient acquisition, preparation and presentation as they promoted the farmers and farms providing the specialty crops and outlets for future purchase. They also MC'ed the introduction of the menu for the West Virginia Society event blending farm to table stories for each of the specialty crops represented.

Based on WV Division of Tourism counts and sign ins, 28 people attended the lunch event (two less than target) while 225 people attended the West Virginia Society event (25 more than target).

Lessons Learned

This project demonstrated a powerful connection between tourism, agritourism and specialty crops. The menu was a powerful testament to the possibilities that West Virginia specialty crops offer in the upscale restaurant market. More importantly, the activity demonstrated an interest in the products and willingness to learn where the products could be purchased.

The challenges to the activity included presenting a specialty crop rich menu without emphasis on non eligible crops and tracking the interest to the retail or tour level. A post event survey was unable to track increases and interest beyond the antidotal remarks provided in the results section.

Long Term Outcomes

The Division of Tourism has continued to be a positive partner using West Virginia specialty crops to promote its culinary tourism product throughout the state. They have partnered in the 2009 and 2010 Charlotte products promoting the state and its specialty crop value added products.

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Summary

The North American Farmers Direct Marketing Association annual conference is a unique opportunity to provide professional development for industry professionals. The conference is divided into two segments. A mobile classroom on wheels bus tour is three days spent on extensive site visits full of specialty crop agritourism, production, marketing and promotion innovations and ideas. The second half of the conference is dedicated to more traditional conference operations including discussions on food safety, roundtables on liability, internet marketing and other administrative functions leading to more efficient production and increased sales.

Current travel trends combined with a surge of interest in locally grown foods and farmers markets have created a huge demand from the public in terms of education and culinary tourism. The creation of an agritourism industry provides many specialty crop farmers with additional revenue opportunities as well as direct contact with consumers to educate them about their crops, uses and future purchases. The North American Farmers Direct Marketing group is considered the premier trade organization for those involved in this blossoming agricultural activity and the potential to promote and expand specialty crop consumption by the general public. Attendance at this event and subsequent follow-up activities, sharing and education are critical for West Virginia farmers to garner the potential and focus their specialty crop production around this potential additional market (i.e. pumpkin patch, etc.).

Activities and Approaches

Two members of the West Virginia Department of Agriculture staff attended the entire conference based out of Baltimore, MD. Visits to sites in MD, DE, and PA included visits to pumpkin patches, retail stores, produce stands, orchards and vegetable fields. The marketing specialists split up to offer the best opportunity to visit all sites and network with a variety of farmers and industry professionals throughout the US, Canada and Great Britain. A total of 31 stops were accomplished throughout the course of the three day tour.

Once based in Baltimore, again, the marketing specialists split up to maximize the coverage of sessions. As a member of the planning committee, Marketing Specialist Martel introduced Pete Pantusso of the American Bus Association who spoke on the group tour market with a strong interest in the agritourism product and what the potential for specialty crop operators was.

Additional topics covered including pick your own operations, marketing and advertising, special event administration of specialty crop events (i.e. pumpkin patches), social networking to market your agritourism product, liability

concerns and a roundtable centered on crisis communications. Throughout each session, notes, ideas and activities were documented for future sharing by both WVDA participants.

Results

Participating staff prepared and presented a workshop entitled, “50 Ideas for Adding Specialty Crops to Your Agritourism Operation” at the 2011 West Virginia Small Farms Conference in February of 2011. The workshop was attended by 20 participants and followed a successful full day agritourism workshop attended by 13 potential agritourism and expanding operations.

From these two presentations, 2 operations (Fresh Feast from the Farm and Orr’s Farm Market) committed to new ventures for the upcoming season (expanded festival and increased catering commitments featuring specialist crops). Two participants submitted SCBGP proposals for a variety of specialty crops (rose hips and thermal raised beds in high tunnels) and a Farm to School initiative were spurred from the models presented.

A “Best Practices for Specialty Crops in an Agritourism Setting” is currently in production for distribution in hard copy and electronically. Anticipated production date is February, 2013.

Lessons Learned

This event continues to be a huge forum for discovering new trends, production techniques and industry trends. As a result of participation and sharing for the past two years, new enterprises and expansion. Participation by West Virginia growers in this conference is imperative. The 2012 event will be held in Virginia and West Virginia has contributed by serving on the planning committee and providing funding for specialty crop producers to attend the event firsthand.

Long Term Outcomes

Participation by WVDA professionals and industry producers in this valuable learning experience will be the goal. By providing successful models of specialty crop production in both traditional and agritourism environments allows the industry to see potential and make positive changes to their enterprises.

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